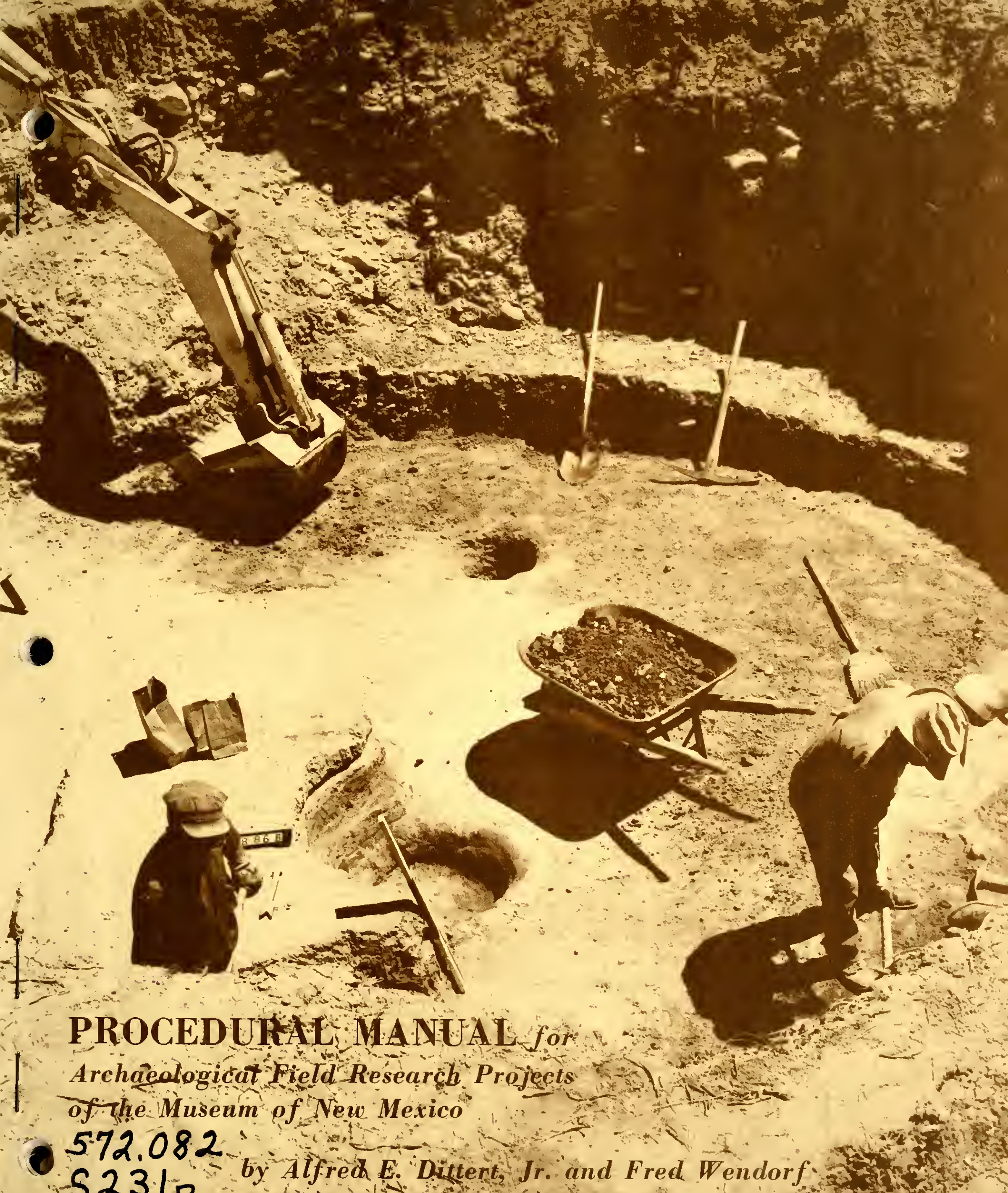

PROCEDURAL MANUAL *for* *Archaeological Field Research Projects of the Museum of New Mexico*

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S231p
no.12

by Alfred E. Dittert, Jr. and Fred Wendorf

Museum of New Mexico Press, Papers in Anthropology
number 12 *Santa Fe, 1963*

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INTRODUCTION

The Procedural Manual for Archaeological Field Reseach Projects of the Museum of New Mexico describes and illustrates a system of recording field data by the use of standard terminology and of standard forms. Since all the field records pertaining to a given project will clear through, and be processed by, the Division of Research, it is essential that the recording techniques be completely compatible and be employed with consistency throughout.

The recording techniques and data-filing methods that are described in this Manual, have been developed during the past thirty-two years. This current edition of the Manual reflects, and profits from, the experience gained on salvage projects which the Museum of New Mexico has carried on in cooperation both with State and with Federal agencies during that period. It owes much to a similar effort of Jennings (1958).

There is no claim that the techniques and methods of the Manual are superior to those used elsewhere. The fact remains that they have received rigorous testing in several large projects, where numerous field parties carried on excavations in a single district. In the course of these projects, personnel other than those engaged in the excavation work processed the architectural and artifactual data successfully and with little difficulty, thanks in large measure to the record system. The system has proved its applicability to all kinds of sites encountered. Further, to follow it faithfully largely removes the possibility of irretrievable loss of information. In this connection, it deserves emphasizing that a site excavated is a site destroyed; the written record alone survives.

The Records

The records for archaeological field projects of the Museum of New Mexico fall into the following five groups: a) Survey Records, b) Excavation Records, c) Laboratory Records, d) Catalog and Collection Records, and e) Publications. All these records are systematized through use of site numbers assigned from the Museum of New Mexico Site Record Book. This is a simple, numerical system, set up in 1931 by the Laboratory of Anthropology to designate archaeological sites in any part of the world, regardless of geographical or political subdivision. All site numbers bear the prefix LA, which is an abbreviation for the Laboratory of Anthropology, the former title of the Division of Research, Museum of New Mexico.

The Curator of Archaeological Research assigns site numbers at the time when the descriptive site data and surface collections are received at the Division of Research. In those cases where a set of notes is geographical in nature, the designation of the records takes the name of the major drainage. These designations conform to the system used in filing Site Survey Cards.

Invariably, the archaeological field records must be prepared in duplicate. The original goes to the Division of Research, as soon as practicable after it is made; the researcher retains the duplicate until he has completed his report. At that time the duplicate goes to a file in the Division of Research, physically separated from that of the original, in the interest of security. Insofar as practicable, the record will be typewritten; if handwritten, it should be clearly legible. The Curator of Archaeological Research is the custodian of all the original records.

The Division of Research has adopted the system of recording archaeological data, outlined below, to preclude the loss of essential information and to effect firm, uniform control. It is especially true in salvage archaeology that, often, a person other than the researcher in the field writes the final report. Personnel in the laboratory may be processing field data concurrently with the work in the field. Also, the urgency of salvage operations may require placing personnel in the field who lack orientation in Museum of New Mexico recording procedures. Finally, if further justification for the system is needed, it should be evident that complete field notes, prepared in a uniform manner, will facilitate re-evaluations and syntheses in the future.

The Filing System

The archaeological records are divided among four separate files, within which they are arranged and identified according to their LA numbers:

1. A manila envelope (size 11" x 14") contains the descriptive notes from surveys and excavations, which include Site Survey Forms, Field Journals, General Feature Forms, and other records described in this Manual. If survey notes, alone, are involved even though they pertain to several sites, they may properly be placed in the same envelope, which is so marked. However, in the case of excavated sites, all notes of the above character which pertain to the given site must be filed in a single envelope, devoted exclusively to that site. The envelope is so marked.

2. A "negative" envelope, which contains but one photographic negative, is marked and filed by site number, and in numeri-

cal order under that site number. Further, on each such envelope appears the negative number, subject matter of the photograph, size of the negative, and the date of taking. Color negatives receive special, color-coding. If color transparencies alone exist, colored cards are filed in the proper sequence to attest to their existence, and to indicate their location in the slide file.

3. Standard slide boxes for 2" x 2" slides are used to file transparencies which are arranged according to individual site number. Each transparency is properly labeled.

4. A file contains original maps and drawings of given sites that are too bulky for inclusion in the envelope referred to in (1) above. Photo-copies of each of the large maps and drawings, however, will be filed with the site notes in the manila envelope.

The Curator of Archaeological Research is responsible for the maintenance of the files above described; and only the Curator and his assistant may withdraw or add items.

THE SURVEY RECORDS

"A site is a minimum operational unit of geographical space" (Willey and Phillips, 1958). It may consist of such items as a habitation unit, a trail or trails, a shrine, pictographs, evidence of cultivation not directly associated with a habitation, and similar manifestations. When, on a designated unit, there exists evidence of several occupations, these are considered as components of the same site. The system designed to describe such a unit provides essential, detailed information, which will prove useful for research in either problem archaeology or salvage archaeology.

In the field, it is permissible to use a temporary number to designate a site; but, as soon as practicable, a permanent LA number should replace it. If it is anticipated that a large number of sites will require prompt attention, the Curator of Archaeological Research may elect to issue for use in the field a block of LA numbers from the Site Record Book. In any event, the location of the site must be entered in the Site Record Book and on the index maps without delay.

Site Survey and Site Survey Continuation Forms

The Site Survey Form (Fig. 1) is completed in the field in the course of site examination. If the space provided cannot accommodate a total observation, place an asterisk at the end of the comment on the Form, and continue the discussion on the Site Survey Continuation Form (Fig. 2). All measurements are expressed in the metric system except when it is necessary to relate the site to other systems such as highway stations.

Detailed explanation of the headings on the Site Survey Form follows:

Area is a generalized designation to aid in sorting sites by locality, or in relocating a given manifestation.

Drainage is the major sub-watershed in which the site lies. The Site Survey Card will be filed in accordance with the drainage designation.

Site No. is the permanent LA number (accompanied by the temporary number, if the use of such was necessary).

Project refers to the named unit of investigation under which the site was located.

Date is the date on which the site information was recorded.

Township, range, section designation by legal subdivision follows the rectangular system of surveys of the Bureau of Land Management, U.S.D.I. (formerly General Land Office). Other geographical coordinates may be used when the U.S.D.I. System is not applicable.

Map Source names the map on which the site was first plotted. Some construction maps are gridded in feet; accordingly the site location may be recorded in feet to conform to the map.

Culture and Period are preliminary evaluations which are subject to change when analysis of the material recovered from the site takes place. When named periods for a district are absent from the literature, describe it in terms of pottery types or other meaningful criteria.

Location refers to the bearing and distance from an established point. This information will facilitate plotting the location of the site on maps other than that named under Map Source.

Situation is the position of the site in relation to its environment.

Natural Resources embrace arable land, minerals, timber, water, and any other observable resources in the environment.

Type is a description of the site itself.

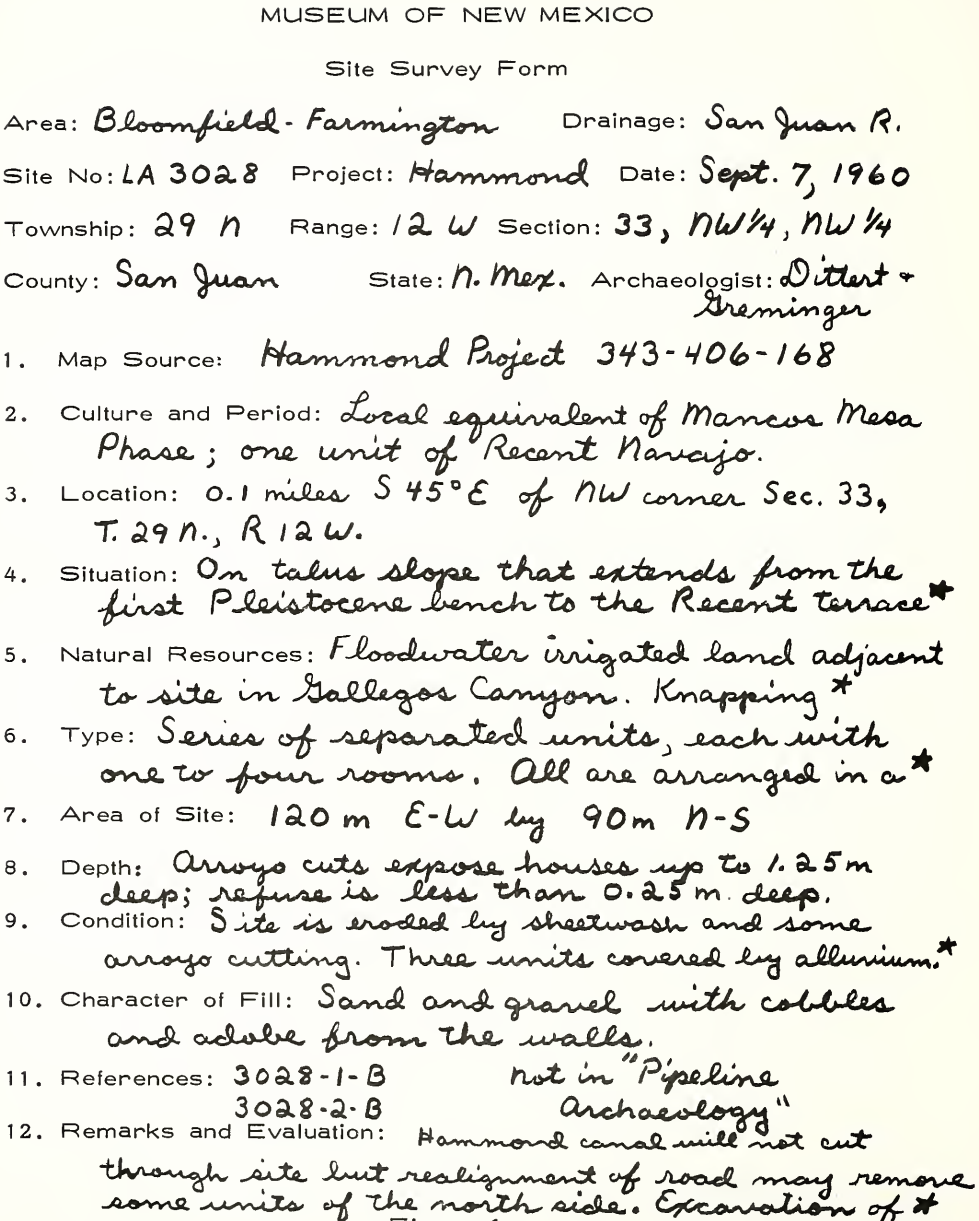
Area of the Site is expressed by approximate over-all dimensions preferably by cardinal compass directions. At some sites, it is important to give distances between units and sizes of units.

Depth can be estimated from surface indications, but is usually arrived at on the basis of experience. In either case, describe the evidence.

Condition is an objective statement describing the deterioration of the site by human or natural agencies.

Character of Fill is estimated from the construction material used in the site and from the character of the adjacent deposits.

References include notes regarding earlier mention of the site, or may refer to drawings and photographs of the site.



MUSEUM OF NEW MEXICO

Site Survey Form

Area: Bloomfield - Farmington Drainage: San Juan R.

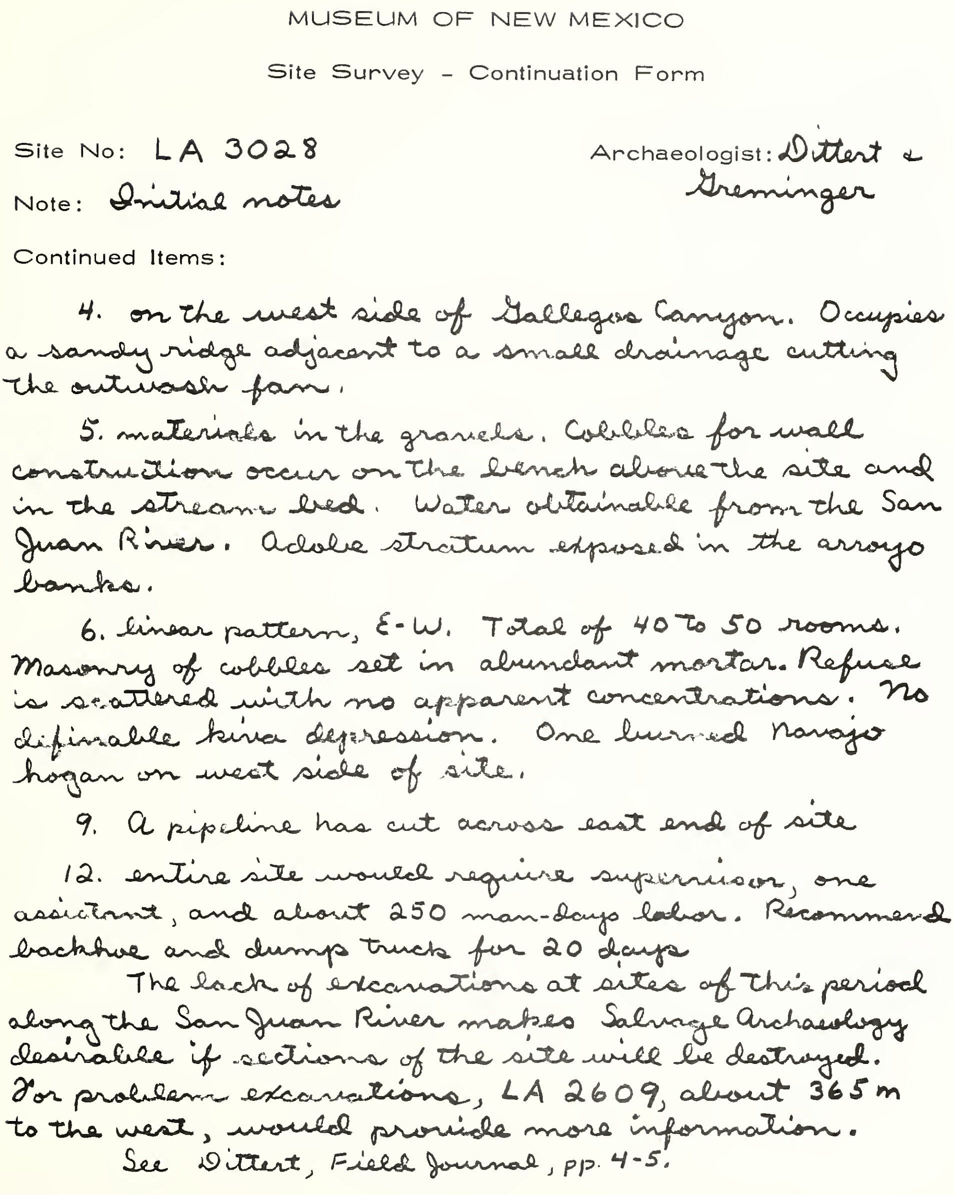
Site No: LA 3028 Project: Hammond Date: Sept. 7, 1960

Township: 29 N Range: 12 W Section: 33, NW1/4, NW 1/4

County: San Juan State: N. Mex. Archaeologist: Dittert + Greminger

1. Map Source: Hammond Project 343-406-168
2. Culture and Period: Local equivalent of Mancos Mesa Phase; one unit of Recent Navajo.
3. Location: 0.1 miles S 45°E of NW corner Sec. 33, T. 29 N., R 12 W.
4. Situation: On talus slope that extends from the first Pleistocene bench to the Recent terrace*
5. Natural Resources: Floodwater irrigated land adjacent to site in Gallegos Canyon. Knapping*
6. Type: Series of separated units, each with one to four rooms. All are arranged in a*
7. Area of Site: 120 m E-W by 90m N-S
8. Depth: Arroyo cuts expose houses up to 1.25m deep; refuse is less than 0.25 m. deep.
9. Condition: Site is eroded by sheetwash and some arroyo cutting. Three units covered by alluvium.*
10. Character of Fill: Sand and gravel with cobbles and adobe from the walls.
11. References: 3028-1-B not in "Pipeline
    3028-2-B Archaeology"
12. Remarks and Evaluation: Hammond canal will not cut through site but realignment of road may remove some units of the north side. Excavation of*

Figure 1.



MUSEUM OF NEW MEXICO

Site Survey - Continuation Form

Site No: LA 3028

Archaeologist: Dittert & Greminger

Note: Initial notes

Continued Items:

4. on the west side of Gallegos Canyon. Occupies a sandy ridge adjacent to a small drainage cutting the outwash fan.

5. materials in the gravels. Cobbles for wall construction occur on the bench above the site and in the stream bed. Water obtainable from the San Juan River. Adobe stratum exposed in the arroyo banks.

6. linear pattern, E-W. Total of 40 to 50 rooms. Masonry of cobbles set in abundant mortar. Refuse is scattered with no apparent concentrations. No difinable kiva depression. One burned Navajo hogan on west side of site.

9. A pipeline has cut across east end of site

12. entire site would require supervisor, one assistant, and about 250 man-days labor. Recommend backhoe and dump truck for 20 days

The lack of excavations at sites of this period along the San Juan River makes Salvage Archaeology desirable if sections of the site will be destroyed. For problem excavations, LA 2609, about 365 m to the west, would provide more information.

See Dittert, Field Journal, pp. 4-5.

Figure 2.

Remarks and Evaluation include: (a) any pertinent data not covered by the above headings, (b) the possible value of the site for research purposes, and (c) an estimate of the time (man-days) and equipment required to investigate the given unit.

Although the Division of Research has adopted the Site Survey Form for general use, specialized survey problems may, on occasion, require a form that furnishes detailed information of a different character. Such a form must receive the approval of the Curator of Archaeological Research; and the headings must be so arranged as to be susceptible of having the information appearing under them transferred to the standard Site Survey Form and Site Survey Card.

Field Specimen and Photographic Data Sheet

A combined Field Specimen and Photographic Data Sheet (Fig. 3) serves to identify and arrange in order both surface collections and photographs taken during the survey.

In the illustration furnished, we are concerned solely with surface collections and photographs of the surface. Accordingly, since features are not involved, we enter "0" after the heading, Feature No., when dealing with such collections. Specimens are numbered as in the example shown: first comes the LA number, 3028; then the designation for surface collection, 0; and, finally, the specimen number, 1, which refers to the first specimen recorded. In this case, it is a bag of sherds collected from the site. The second specimen number, in this case, miscellaneous stone, is numbered 3028-0-2. Numbering proceeds accordingly. Techniques used in making the collections depend upon the type of site and on problems visualized by the investigator.

Photographs, also, receive identifying numbers; and, as each photograph is taken, a number board with the appropriate number must appear in the picture. In the example shown, the first black-and-white photograph is numbered: first, with the LA number, 3028; then, with the digit 1, which refers to the first photograph taken; and, finally, comes the capital letter B, indicating "black-and-white". If, on the other hand, this photograph had been a color photograph, its identifying number would have been 3028-1-C, the capital C standing for "color".

Graph Continuation Sheet

To aid further study of a given site, the researcher often uses to advantage the Graph Continuation Sheet (Fig. 4). On such a sheet he can plot, freehand, and to scale, the various details of the site, its location in relation to the immediate environment, its shape, its orientation, the area of the pollen sample collections, and other details.

Collection of Surface Pollen Samples

Surface pollen samples are collected at every site and from other vegetation communities encountered during a survey trip. Such samples provide data on pollen from local vegetation as it is being deposited under prevailing conditions. The purpose is twofold, that is, many samples from a large area permit regional interpretations and, such samples become a modern control for specimens collected when the site is excavated.

When collecting pollen samples, a number of cautions should be observed. These include the following:

1. Care must be taken to obtain the most recent deposits. If the surface is undergoing erosion, select only the modern remnants to avoid mixture of ancient and recent materials.

2. Never attempt to collect when it is raining. Raindrops are efficient traps for airborne pollen and a few drops are sufficient to upset the proportion.

3. Use a clean trowel. Wipe off any adhering dirt with a rag or piece of paper. Saliva, which normally contains very little pollen, is helpful in cleaning. If saliva is used, be sure that the trowel is dry before collecting samples.

4. If the collection must be made under strong windy conditions, this should be noted on the Vegetation Record Form (Fig. 5).

5. Sample the locality before walking around extensively. This is especially true if the ground is wet.

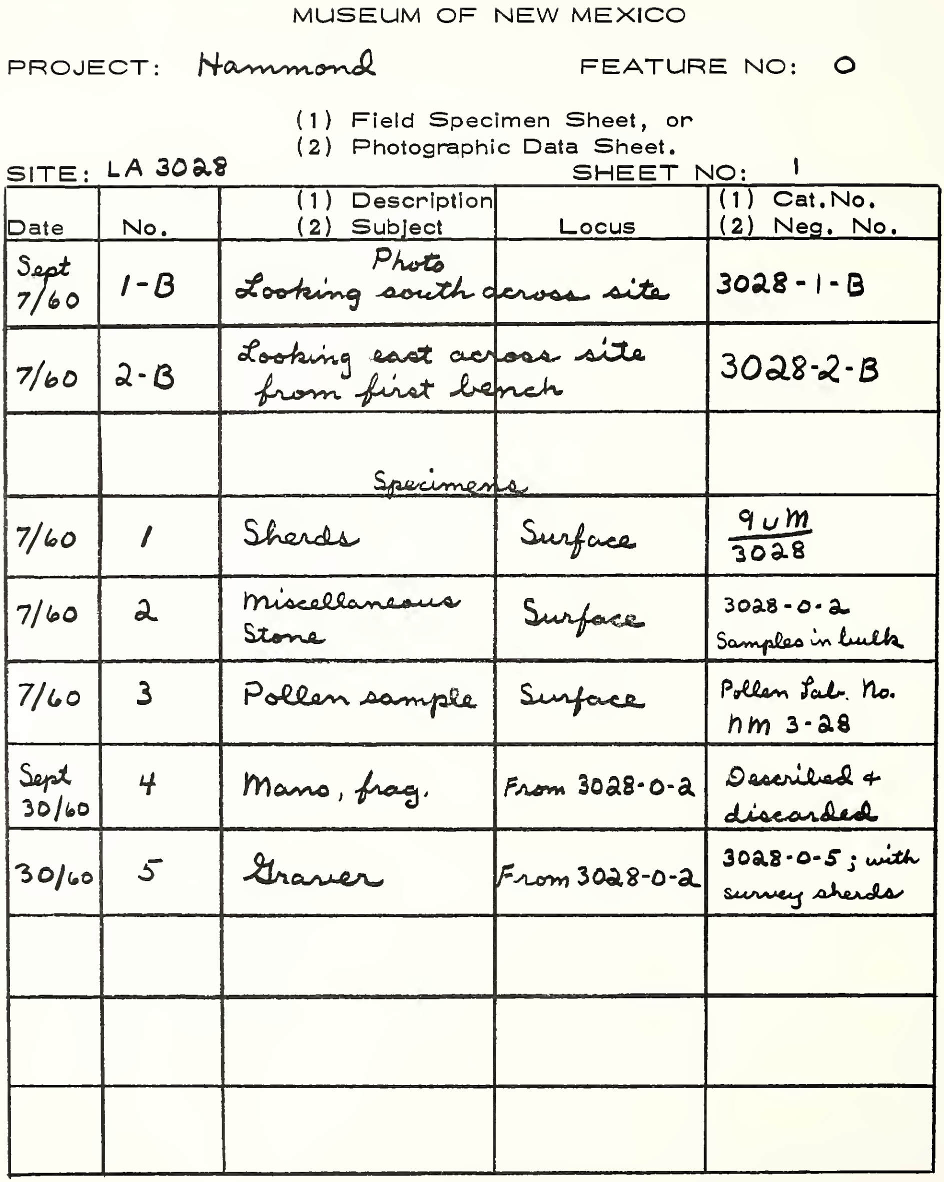
6. Do not touch samples with your fingers.

Equipment required is minimal and consists of manila envelopes (3 3/8" x 6"), polyethylene refrigerator bags (pint size), a trowel, and sealing tape.

The procedure is as follows:

1. Select an area about thirty paces square for the collection.

2. Walk over the area looking for small depressions where



MUSEUM OF NEW MEXICO

PROJECT: Hammond FEATURE NO: 0

(1) Field Specimen Sheet, or
(2) Photographic Data Sheet.

SITE: LA 3028 SHEET NO: 1

Date	No.	(1) Description (2) Subject	Locus	(1) Cat.No. (2) Neg. No.
Sept 7/60	1-B	Photo Looking south across site		3028-1-B
7/60	2-B	Looking east across site from first bench		3028-2-B
		Specimens		
7/60	1	Sherds	Surface	9uM 3028
7/60	2	Miscellaneous Stone	Surface	3028-0-2 Samples in bulk
7/60	3	Pollen sample	Surface	Pollen Lab. No. nm 3-28
Sept 30/60	4	Mano, frag.	From 3028-0-2	Described + discarded
30/60	5	Graver	From 3028-0-2	3028-0-5; with survey sherds

Figure 3.

MUSEUM OF NEW MEXICO
Graph Continuation Sheet

Project: Hammond Site: LA 3028 Feature: 0 Sheet No: 1

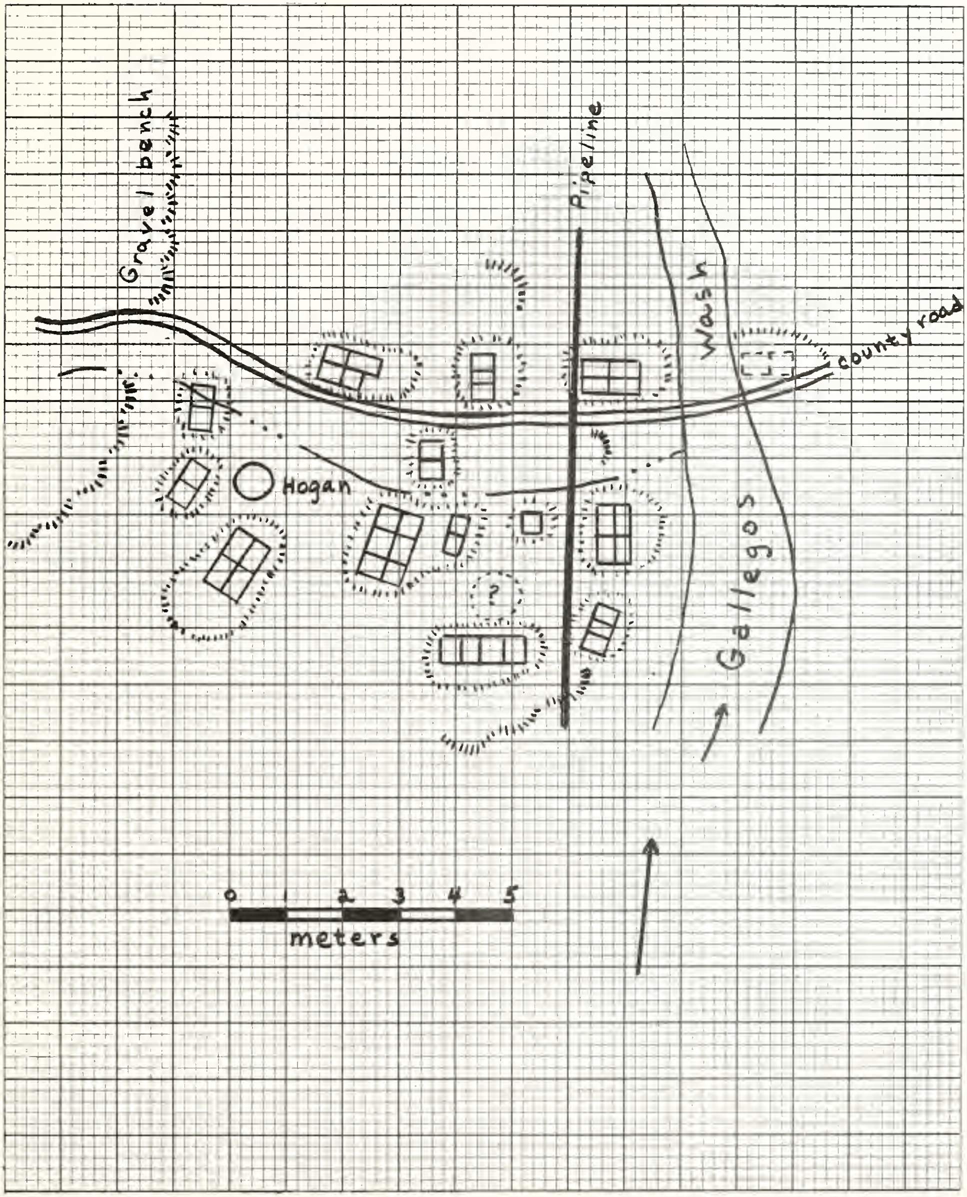


Figure 4

soil has been deposited over the last few seasons. With the trowel, collect a pinch of sediment from ten to twenty such depressions so that the entire selected area is represented as well as possible.

3. Obtain about 150 to 200 grams of material. This amount will fill the envelope. Seal the envelope with the sealing tape.

4. If the ground is wet, collect the sample in a polyethylene bag and, after sealing the bag, place it in a labeled envelope.

5. If moss cushions (polsters) are evident in the sample area, collect no more than three examples and place in a separate envelope clearly marked with the word "MOSS."

6. If more than one vegetation type occurs nearby, sample and record each type.

7. Fill out the Vegetation Record Form. If the vegetation type is not represented on the checklist, circle prominent plants on the list. When samples are obtained from other places than sites, give the sample an arbitrary designation. A permanent number is assigned when the sample and the Vegetation Record Form reache the laboratory. Be sure that the label on the envelope agrees with data on the Vegetation Record Form. In filling out the date, the month is abbreviated instead of using a number, that is, 5 Sept 1963 instead of 5/9/63.

8. Data on the envelope is given in the following order:

SURFACE POLLEN SAMPLE

LA
Field No.
Location:

Collector:
Date:

Vegetation Type:

Field Journal

The forms described in the foregoing normally include complete information concerning a given individual site. In addition, a current, running record, set down on the Field Journal (Fig. 6) will prove to be of great practical value. The Field Journal, when used for surveys, usually concerns details of an entire trip. In it the

VEGETATION RECORD FORM

Cat. No. n.m. 3-28

Site: LA 3028

Collector: Dittert

Field Number: 3028-0-3

Strong winds? north

Location: T. 29 n., R. 12 w., Sec. 33, nw 1/4, nw 1/4

Date: 7 Sept. 1960

Above timberline

Aspen

Spruce-fir

Douglas fir

Doug. fir-Ponderosa

Pinyon

Pinyon-Juniper

Juniper

Oak-squawberry

Oak-grass

near Pinyon-Juniper-Sagebrush

Juniper-Sagebrush

Sagebrush

Sagebrush-Greasewood

[✓ Grassland]

Grassland-Greasewood

Barren

Grassland-Mesquite

Grassland-Cholla

Grassland-Creosote

Creosote-Cactus

Cactus

Saltbush

Tamarisk

Cultivated

Lake Pond River Cienega Arroyo Margin

Willow

Cottonwood

Other__________

Cattail-Sedge

Willow-Sedge

Very tall grass

[✓ Alluvium] Water deposit Wind deposit

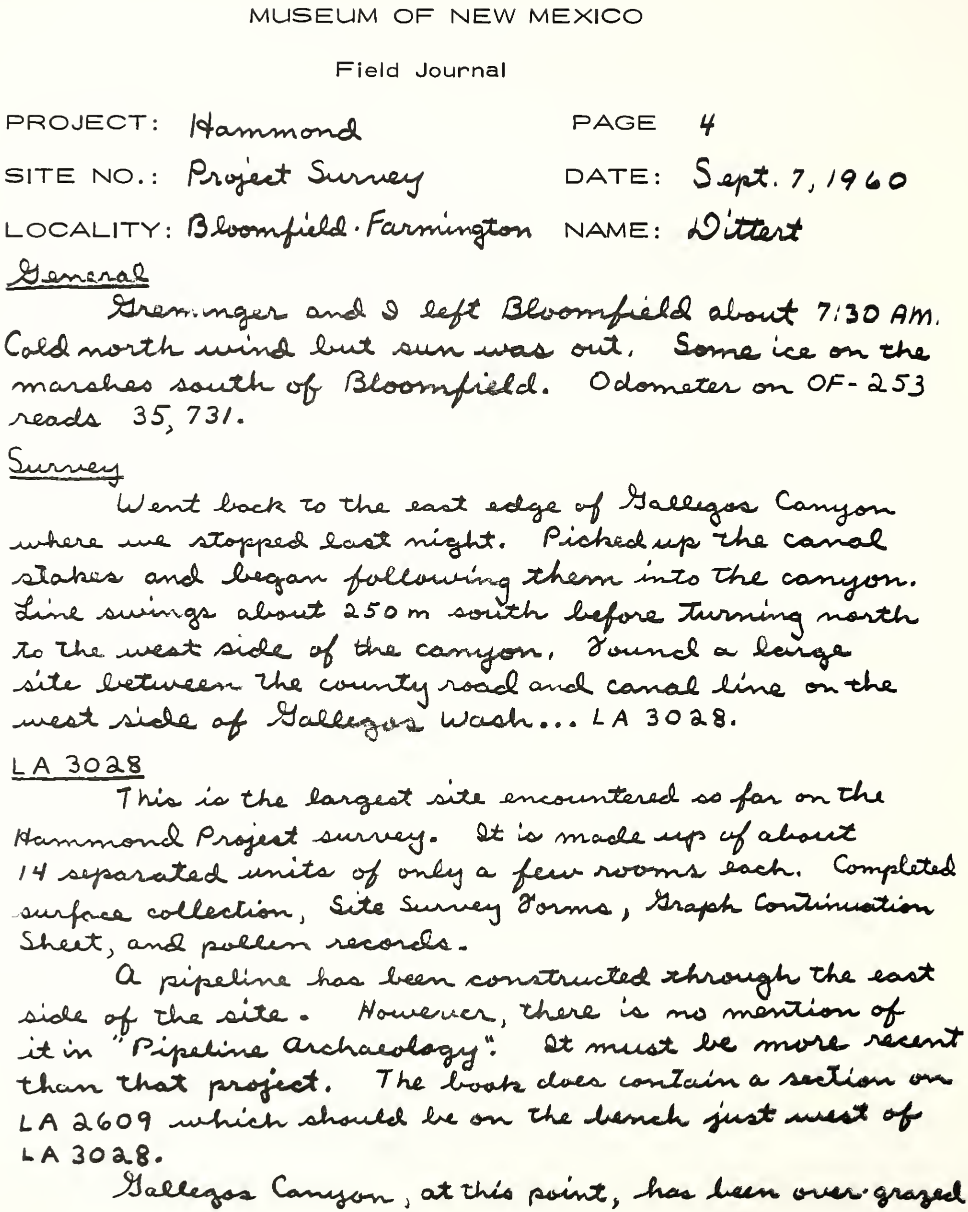
Roadside [✓ Disturbed ground] [✓ Heavily grazed]

Topography (canyon, mesa, slope, etc.) talus slope of gravel bench.

Sampled area typical of vegetation pattern yes

Atypical (how?)__________

Figure 5.



MUSEUM OF NEW MEXICO

Field Journal

PROJECT: Hammond PAGE 4
SITE NO.: Project Survey DATE: Sept. 7, 1960
LOCALITY: Bloomfield-Farmington NAME: Dittert

General

Greninger and I left Bloomfield about 7:30 AM. Cold north wind but sun was out. Some ice on the marshes south of Bloomfield. Odometer on OF-253 reads 35,731.

Survey

Went back to the east edge of Gallegos Canyon where we stopped last night. Picked up the canal stakes and began following them into the canyon. Line swings about 250 m south before turning north to the west side of the canyon. Found a large site between the county road and canal line on the west side of Gallegos Wash... LA 3028.

LA 3028

This is the largest site encountered so far on the Hammond Project survey. It is made up of about 14 separated units of only a few rooms each. Completed surface collection, Site Survey Forms, Graph Continuation Sheet, and pollen records.

A pipeline has been constructed through the east side of the site. However, there is no mention of it in "Pipeline Archaeology". It must be more recent than that project. The book does contain a section on LA 2609 which should be on the bench just west of LA 3028.

Gallegos Canyon, at this point, has been over-grazed

Figure 6.

supervisor notes such items as vehicle mileage, dates on which work was accomplished and the personnel involved, general description of the area, general characteristics of the occupation, unusual events, and any other pertinent, essential items. A reference to the mention of a site in the Field Journal is made on the Site Survey Forms. A more detailed description of the uses of this form is given in the next section.

Maps

The regional maps used in the field survey will vary according to the type of project involved. As soon as the Division of Research receives the requisite information from the field, the location of the given site is plotted on a set of reference maps, quadrangle sheets, at a scale of 1:126,720 (1" equals 2 miles). These are the product of the planning division of the highway department of the State concerned. If such are not available, use the most accurate map obtainable. For projects beyond the continental limits of the United States, it will be the project supervisor's responsibility to provide maps appropriate for survey record use. Where a detailed survey is involved, the State highway map, above referred to, may be supplemented, but not replaced, by U. S. Geological Survey quadrangles of the 7 1/2' and 15' series. All survey record maps are filed in the Division of Research survey room; they are not to be removed for any purpose.

Processing Survey Materials in the Laboratory

Site survey notes brought into the laboratory for processing consist of Site Survey Forms, Field Specimen and Photographic Data Sheet, Graph Continuation Sheet, Vegetation Record Form, Field Journal, and a reference map. While all sites do not yield equivalent categories of materials, collections usually include representative samples of pottery, stone, artifacts, and pollen samples whenever applicable. A photographic record is made of each site.

Personnel other than the researcher often carry out many of the steps involved in the processing of survey materials in the laboratory; nevertheless, it remains the researcher's responsibility to ensure that the effort is finally completed in all respects. The following operations are involved:

1. Location of the site is plotted on the Survey Record Map as well as on a larger scale map if such is available.

2. Location data are entered in the Survey Record Book. Sites in this book appear in numerical order. A typical entry is as follows:

3028 - 9uM San Juan River. NW l/4, NW l/4, Sec. 33,T29N,R12W;
Quad. 2 0.1 miles S 45° E of NW corner Sec. 33, T29N, R12W.
San Juan County, New Mexico.
Project: Hammond #10 Archaeologist: Dittert.
Sherds: Typed. Artifacts: Bulk (B 1 F). Excavated: None.

3. A Site Survey Card (Fig. 7) for the Survey File is prepared using data contained in the Site Survey Forms. Each such card is filed in numerical order under the appropriate drainage divider.

4. Ceramic and stone collections are analyzed and tabulated on the Pottery Analysis Form and the Stone Analysis Form, both of which are described in a later section. If additional artifacts are found in these collections, the fact is noted in the space provided and they are recorded by adding numbers to the Field Specimen Sheet. For example, the last number used in the field is 3028-0-3. Then, artifacts found when the collections are analyzed become 3028-0-4, 3028-0-5, and so one.

5. A representative series of ceramics and stone is saved for inclusion in the survey collections. Sherds and stones receive labels with the site number and cabinet number, and are then placed in compartmented drawers, according to the general region. Small artifacts are labeled with the artifact number, and go into the compartment with the sherds. Miniscule items go into a labeled envelope in that same compartment. The larger artifacts are placed in bulk storage and the fact is so noted on the Site Survey Card and on the Field Specimen Sheet. In rare instances, exceptional items are catalogued in the Museum Catalog System, a process to be considered in detail later in this Manual. Artifacts discarded because of their fragmentary condition, or because the form is represented by many examples, receive attention in adequate notes made on the Artifact Form or on a combination of such form with the Catalog Description Form. These forms are described later. By this means it is possible to record observations, both metrical and morphological, in the process of establishing forms of artifacts.

6. Ceramic types represented at the site are noted on the Site Survey Card and an entry for each type is made in the Ceramic Type File.

7. The surface pollen sample is given to the palynologist. A third copy of the Vegetation Record Form is made and submitted with the sample. The sample then receives a permanent number and is analyzed or filed until research projects are undertaken in the district from which the sample is obtained.

Location: San Juan River. T. 29 N., R. 12 W., Sec. 33, NW¼, NW¼. 0.1 miles S 45° E of NW corner Sec. 33, T. 29 N., R. 12 W.

San Juan County, New Mexico   Hammond Project #10   Sept. 7, 1960

Site No. 9uM/3028

Map:
Quad. 2

Site Type: Series of separated units, each with one to four rooms. Arranged in a linear pattern E-W. Total of 40 to 50 rooms. Masonry of cobbles set in abundant adobe. One burned hogan of Recent Navajo.

Pottery:

Escavada B/W	17
Puerco B/W	4
Gallup B/W	15
Chaco B/W	1
Mancos B/W	8
McElmo B/W	9
Mesa Verde Corrug.	12
Mancos Corrug.	25
	91

3028-0-1

Trade, Variations, Etc.:

Red Mesa B/W	1
La Plata B/R	3
Unidentified	4
	8

56 sherds discarded

Remarks:

Local equivalent of Mancos Mesa Phase

The site occupies a talus slope that extends from the first Pleistocene bench to the Recent terrace on the west side of Gallegos Canyon. On a sandy ridge adjacent to a small drainage cutting the outwash fan.

Resources include floodwater irrigated land adjacent to the site in Gallegos Canyon. Knapping materials in the gravels. Cobbles for wall construction occur on the bench above site and in the stream bed. Water from San Juan River. Adobe stratum exposed in the arroyo banks.

Area about 120 m E-W by 90 m N-S.

Arroyo cuts expose houses up to 1.25 m deep; refuse less than 0.25 m deep.

Site eroded by sheetwash and some arroyo cutting. Three units covered by alluvium. A pipeline has cut across east end of site.

Fill of sand and gravel with cobbles and adobe from the walls.

Hammond Project will not put canal through site. Realignment of road may damage north side.

Artifacts:

3028-0-2	Miscellaneous Stone (see analysis sheet)
3028-0-3	Pollen sample (N.M. 3-28)
3028-0-4	Mano, fragment (described and discarded)
3028-0-5	Graver (in survey drawer with sherds)

References:

3028-1-B	Looking south across site
3028-2-B	Looking east across site from first bench

Figure 7.

8. Exposed film is processed. Identified contact prints are placed with the notes. The negatives are identified, placed in envelopes, and filed.

9. The disposition of all materials obtained from a site must be indicated in the right-hand column of the Field Specimen and Photographic Data Sheet as shown in Fig. 3.

THE EXCAVATION RECORDS

As already stated, in the normal procedure, each site that is to receive attention, of whatever sort, is assigned an LA number. Before starting excavation at a given site, the surface collection from that site receives the attention and the processing that have been described in the foregoing. In those unusual situations where emergency salvage work must go forward without prior survey, it is advisable to obtain LA numbers which can be assigned to the sites. The use of temporary numbers when excavating a site should be avoided whenever possible. If a temporary number must be used, a permanent number should be obtained without delay. Such a procedure is vital to the proper filing of the data pertaining to them.

Feature

In field research, the non-cultural term "Feature" is applied to any of the various units selected by the archaeologist for excavation. The non-cultural designation is preferred since units often turn out to be different from the initial conjecture. Features may be architectural or non-architectural, that is, a room within a pueblo, a pit house, a burial pit, or a test trench. The term, however, does not refer to a fire pit within a room, or any such integral part of a room or pit house; these are architectural details. Items such as those last mentioned receive no feature number; rather, they are treated and described as part of the feature.

Features are numbered serially, beginning with the digit 1 for each site. For example, at a site where there is a small pueblo with six rooms, a kiva, an outside fire pit, a burial pit, and two trenches in a refuse mound, eleven feature numbers are used (Fig. 8). If while digging a test trench, Feature 11, in the refuse mound, a pit house is encountered, the pit house becomes Feature 12.

In the site report, features are translated into cultural terms, that is, Kiva 1, Room 1, Room 2, Refuse Mound, and so on. Further, a table listing the feature numbers and the full cultural designation of each is compiled and included in the site notes file.

When work begins at a site, the supervisor makes no attempt to pre-number the features apparent within the site. Instead, he assigns a number to each feature in its turn, as attention concentrates on it. He maintains a control sketch by plotting feature location in relation to established datum points. Also, the assignment of its respective number to the given feature appears in the Inventory of Field Forms (Fig.17) and is to be noted in the Field Journal (Fig. 15).

At the completion of work on a given feature, the set of notes will include:

(a) General Feature Form (or Non-architectural Feature Form).
(b) Graph Continuation Sheet.
(c) Field Specimen Sheet (if artifacts are recovered).
(d) Photographic Data Sheet (entries applying to the features).
(e) Field Journal (notes and summary).
(f) Burial Form (when such is applicable).

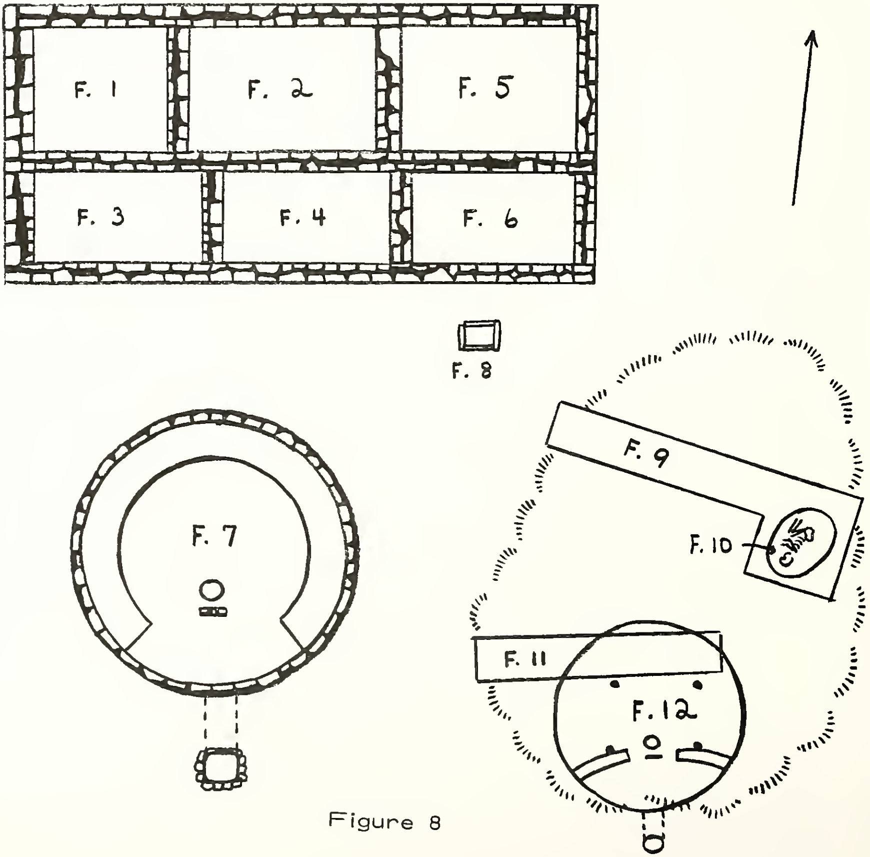


Figure 8

General Feature Form

The General Feature Form (Fig. 9) serves primarily as a memory aid, or check list, to remind the investigator of those specific characteristics which he should note with particular care. The space provided allows the briefest of entries; the full description will appear in the Field Journal. References to the Field Journal notes are given on the General Feature Form. Each and every space on the form requires an answer or comment. If the heading is not applicable, write "No" or "None."

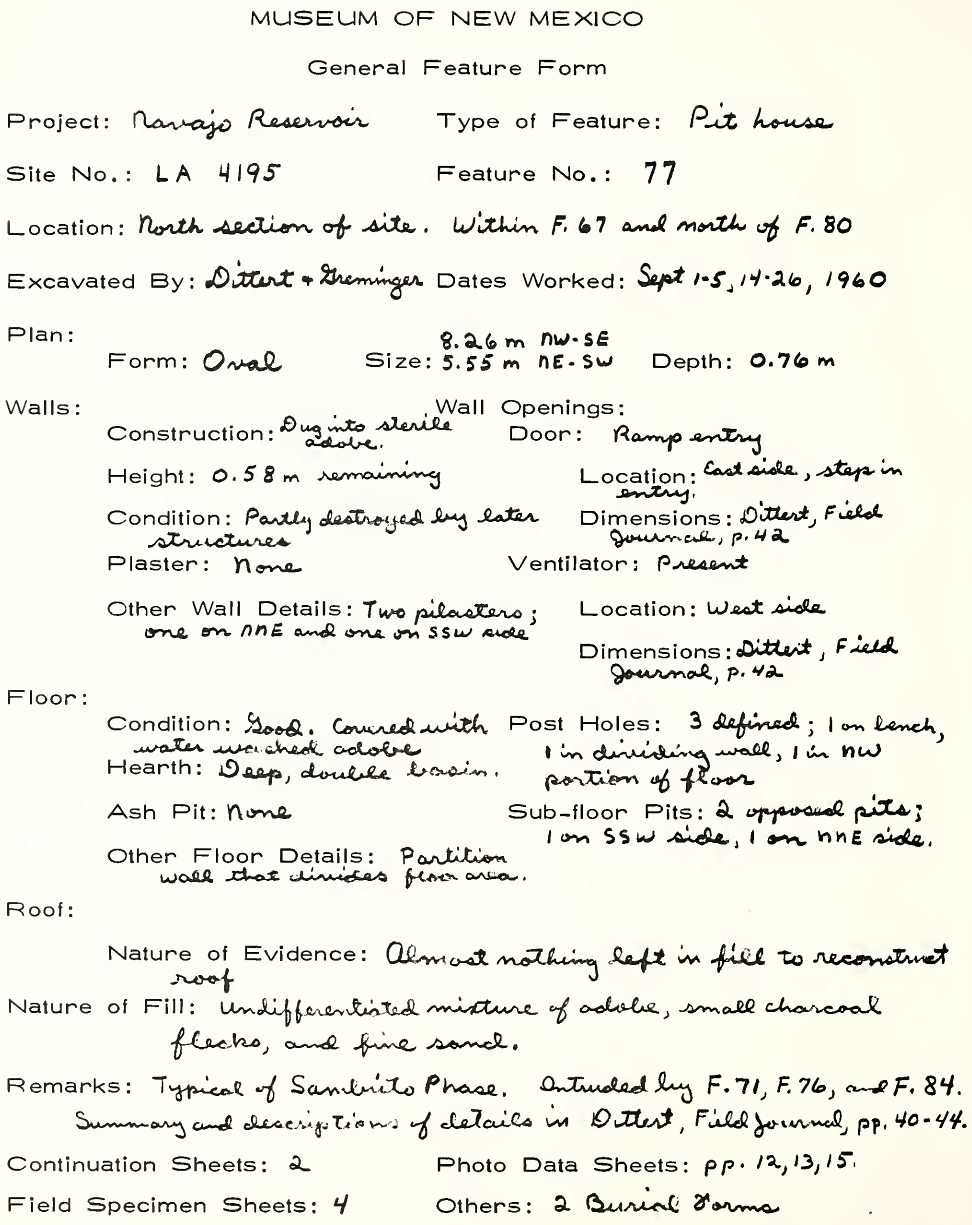
When a given feature receives its assigned number, that is the time to start filling in its General Feature Form. Ordinarily, it will be completed immediately after the excavation of the feature is accomplished.

Non-Architectural Feature Form

When no indications of architecture exist within a feature being excavated, the General Feature Form is replaced by the Non-Architectural Feature Form (Fig. 10). Examples for which the latter form is appropriate include Paleo-Indian and Archaic sites, refuse mounds, test trenches, Paleolithic sites, and similar manifestations. In such instances, horizontal control is maintained from one or more datum points or by a grid system; vertical control is obtained through the use of arbitrary levels or by following cultural strata. An accurate plan and necessary sections of the feature are drawn on the Graph Continuation Sheet (Fig. 12).

Limits of a non-architectural feature depend, in large part, upon the techniques used, amount of material being obtained, complexity of the deposits, and many other factors. In a refuse mound that is divided into a grid, it may be advantageous to refer to a single square as a feature; or, an entire grid or trench may be termed a feature. Normally, separated trenches are given different feature numbers even though both are dug into the same refuse mound. If, in the course of excavating a non-architectural feature, a new feature is encountered, this fact and the designation are entered under Remarks on the Non-Architectural Feature Form.

The Non-Architectural Feature Form, like the General Feature Form, is intended to be a summary. Whenever the heading is applicable, reference is made to additional notes in the Field Journal or on other forms.



MUSEUM OF NEW MEXICO

General Feature Form

Project: Navajo Reservoir Type of Feature: Pit house

Site No.: LA 4195 Feature No.: 77

Location: North section of site. Within F. 67 and north of F. 80

Excavated By: Dittert + Greminger Dates Worked: Sept 1-5, 14-26, 1960

Plan:
Form: Oval Size: 8.26 m NW-SE 5.55 m NE-SW Depth: 0.76 m

Walls:
Construction: Dug into sterile adobe.
Height: 0.58 m remaining
Condition: Partly destroyed by later structures
Plaster: None
Other Wall Details: Two pilasters; one on NNE and one on SSW side

Wall Openings:
Door: Ramp entry
Location: East side, steps in entry.
Dimensions: Dittert, Field Journal, p. 42
Ventilator: Present
Location: West side
Dimensions: Dittert, Field Journal, p. 42

Floor:
Condition: Good. Covered with water washed adobe
Hearth: Deep, double basin.
Ash Pit: None
Other Floor Details: Partition wall that divides floor area.
Post Holes: 3 defined; 1 on bench, 1 in dividing wall, 1 in NW portion of floor
Sub-floor Pits: 2 opposed pits; 1 on SSW side, 1 on NNE side.

Roof:
Nature of Evidence: Almost nothing left in fill to reconstruct roof

Nature of Fill: Undifferentiated mixture of adobe, small charcoal flecks, and fine sand.

Remarks: Typical of Sambrito Phase. Intruded by F. 71, F. 76, and F. 84. Summary and descriptions of details in Dittert, Field Journal, pp. 40-44.

Continuation Sheets: 2 Photo Data Sheets: pp. 12, 13, 15.

Field Specimen Sheets: 4 Others: 2 Burial Forms

Figure 9.

MUSEUM OF NEW MEXICO

Non-Architectural Feature Form

Project: Prewitt H.W.S.

Type of Feature: Test Trench

Site No.: LA 6490

Feature No.: 10

Location: South side of site in refuse mound

Excavated By: J. Wilson

Dates Worked: Aug. 5-7, 1962

Method of Excavation: North-South trench parallel to F. 9. Set 3.0 m to east of F. 9. Made initial test at south end to check for stratigraphy. Stripped entire length of trench using 4 levels, each 10.0 cm deep

Size:

Horizontal: 10.0 m long N-S; 1.0 m wide E-W

Vertical: Maximum 40.0 cm. One test into sterile 20.0 cm.

Nature of Fill: Light gray surface stratum with plant roots and sparse cultural materials. Much of it deposited as a result of wash from the masonry unit. Averaged 9.0 cm deep. Below was an average of 28 cm of refuse. Sherds and stone became scarce in the lowest level but charcoal and ash remained constant. Sterile was dense brown adobe.

Cultural Manifestations:

Pits: None

Post Holes: None

Fire Areas: None

Burials: None. 3 fragments of human long bones at north end
Wilson, Field Journal, p. 14.

Others: None

Remarks: No post-occupation disturbance except for deposited stratum on surface and a few rodent holes.
Summary, Wilson, Field Journal, pp. 16-19.

Continuation Sheets: 1

Photo Data Sheets: p. 10

Field Specimen Sheets: 2

Others: none

Figure 10.

Graph Continuation Sheet

The Graph Continuation Sheet lends itself to quite accurate scale mapping and to the drawing of sections or other details described on the General Feature Form and the Non-Architectural Feature Form. Also, it is useful for plotting the relative position of artifacts, pollen samples, or other non-artifactual remains. Accurate plan and profiles of each feature are drawn on a Graph Continuation Sheet or, if the feature is too large and more space is needed to illustrate the details, a plane table map with profiles is prepared. Two examples of the Graph Continuation Sheet are given; one illustrates its use for details of an architectural feature (Fig. 11) and the second is an example of a non-architectural feature (Fig. 12).

Field Specimen Sheet

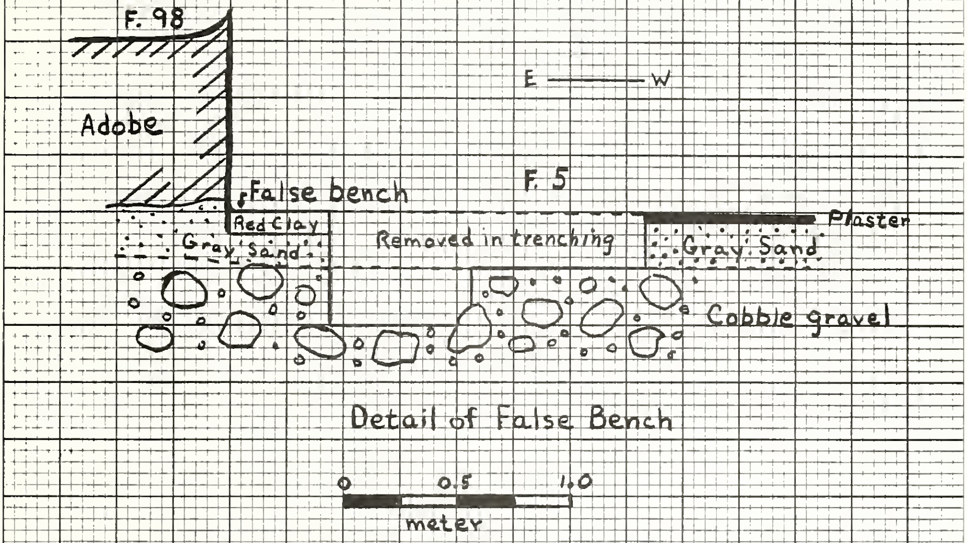
A separate series of Field Specimen Sheets (Fig. 13) is maintained for each feature. Since the same form serves for field specimens and for photographs, a Field Specimen Sheet is identified by crossing out the Photographic Data Sheet heading.

Entries are made on the Field Specimen Sheet as materials are recovered. On this form, every sack, object, or collection of objects receives its individual serial number, beginning with the digit 1 for each feature excavated. To illustrate, and referring to Fig. 13: the number 4195-77-17 designates a fragmentary projectile point, which is the seventeenth specimen recovered from Feature 77 at site LA 4195.

All containers are imprinted so that the information on the Field Specimen Sheet is duplicated on the container. Sacks containing several or many items are so labeled that the identification applies to all items therein. On those large objects not placed in sacks, the field specimen number is written in indelible marking ink. If, at a given excavation site, items are collected from the surface, it is necessary to employ a separate sheet for surface collections (Fig. 3), using the uniform numbering system to identify the various items. The researcher must take care to avoid duplicating survey artifact numbers.

Thus, the Field Specimen Sheet serves as an inventory of specimens sent to the Laboratory. For the person analyzing the material, the Field Specimen Sheet immediately shows the existence of items, information concerning field provenience, and disposition of the item after analysis is completed.

MUSEUM OF NEW MEXICO
Graph Continuation Sheet
Project: Navajo Res. Site: LA 4195 Feature: 5 Sheet No.: 4



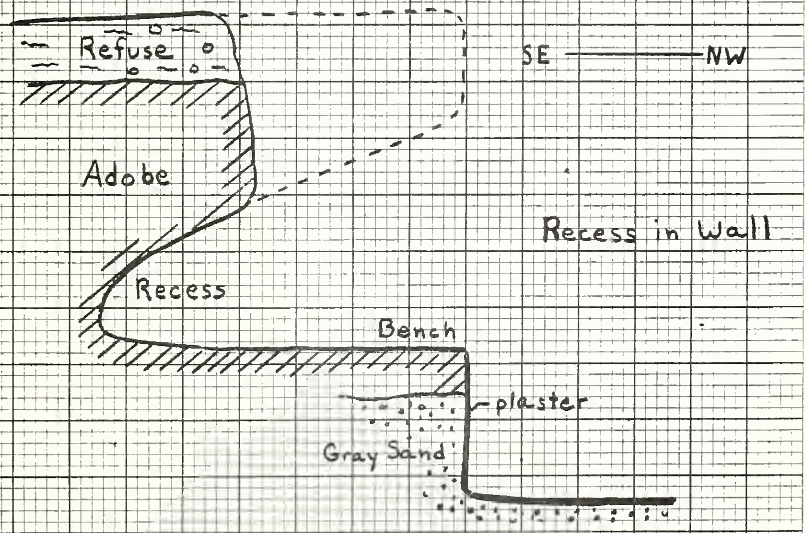


Figure 11.

MUSEUM OF NEW MEXICO
Graph Continuation Sheet

Project: Prewitt H.W.S Site: LA 6490 Feature: 10 Sheet No.: 1

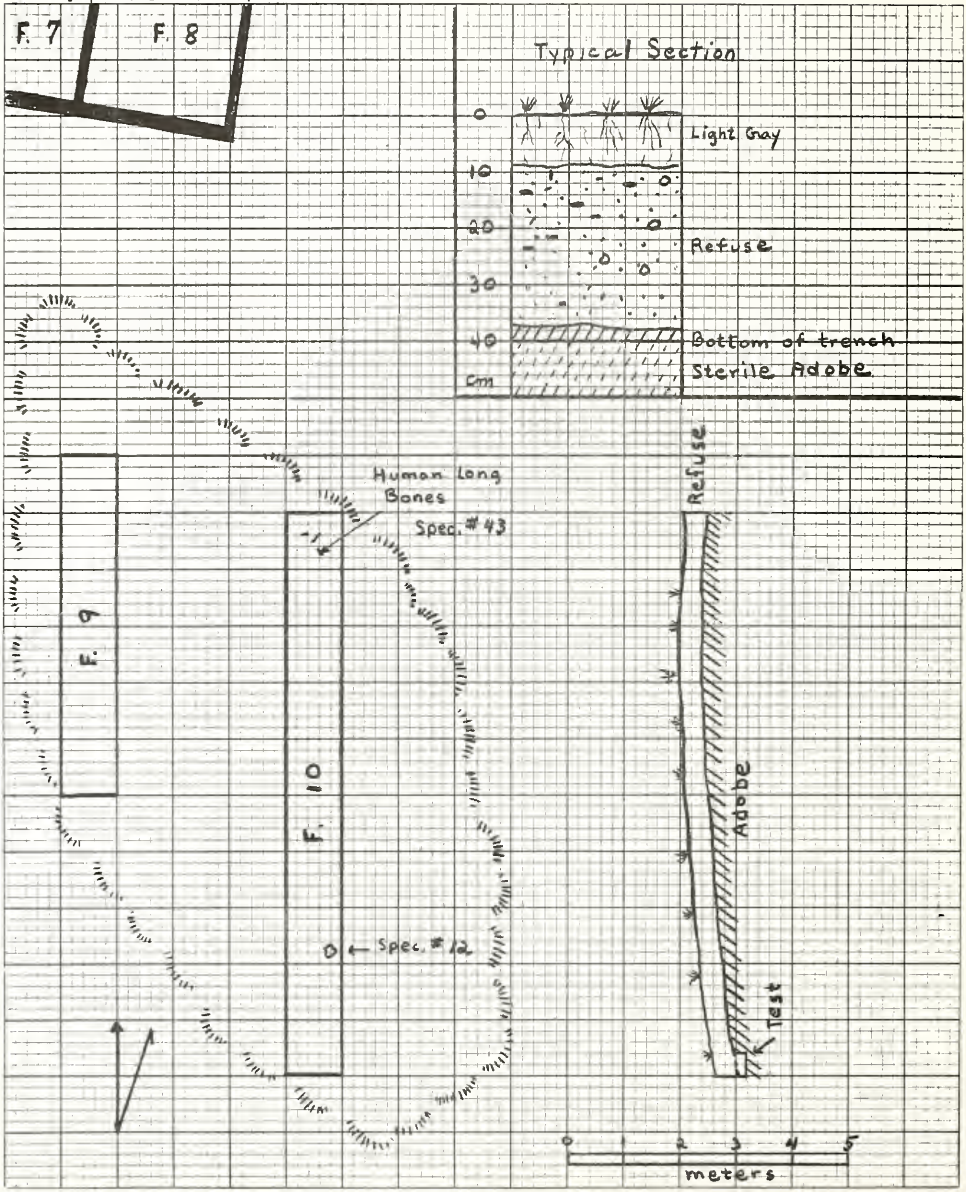
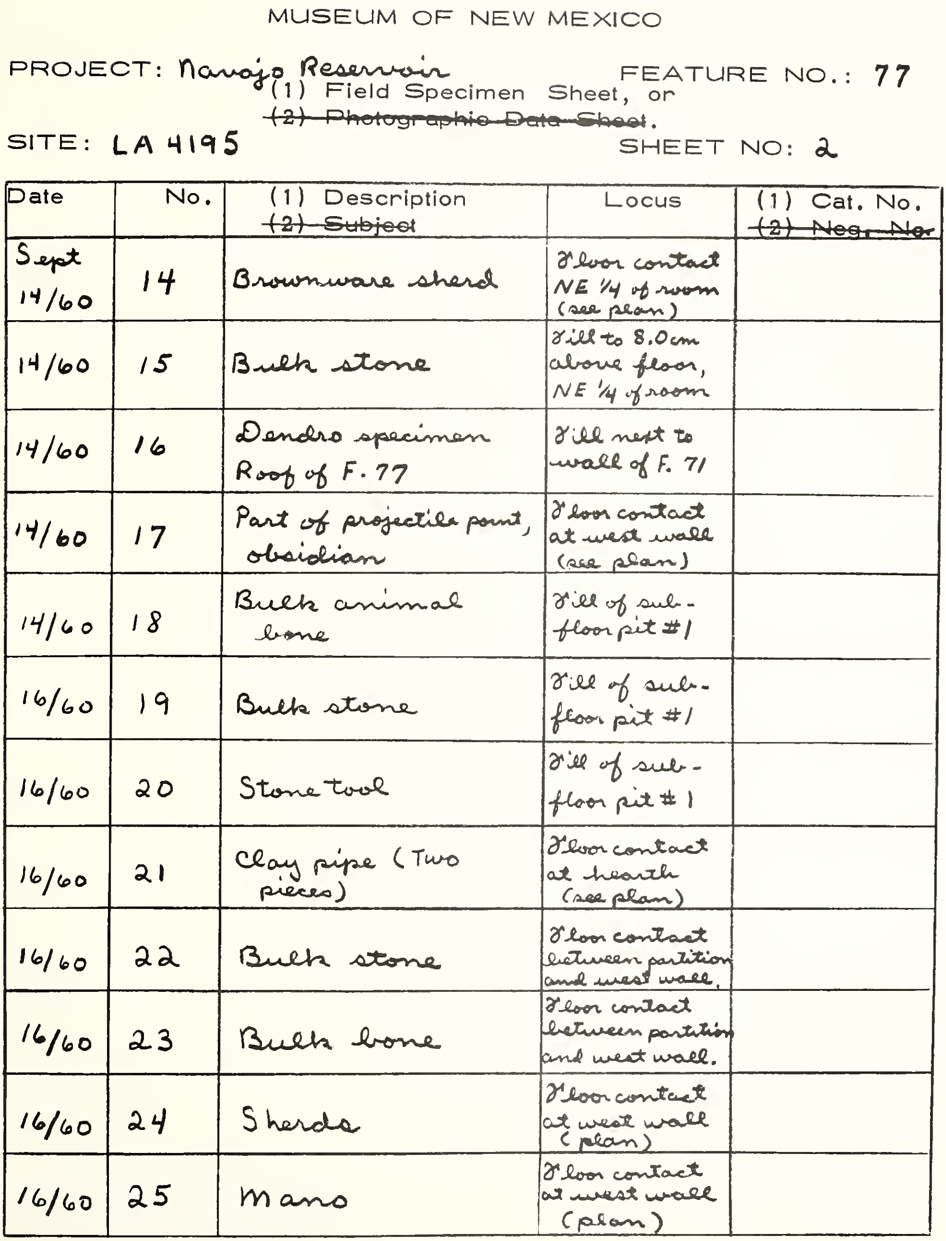


Figure 12.



MUSEUM OF NEW MEXICO

PROJECT: Navajo Reservoir
FEATURE NO.: 77

(1) Field Specimen Sheet, or
~~(2) Photographic Data Sheet~~.

SITE: LA 4195
SHEET NO: 2

Date	No.	(1) Description ~~(2) Subject~~	Locus	(1) Cat. No. ~~(2) Neg. No.~~
Sept 14/60	14	Brownware sherd	Floor contact NE 1/4 of room (see plan)	
14/60	15	Bulk stone	Fill to 8.0cm above floor, NE 1/4 of room	
14/60	16	Dendro specimen Roof of F. 77	Fill next to wall of F. 71	
14/60	17	Part of projectile point, obsidian	Floor contact at west wall (see plan)	
14/60	18	Bulk animal bone	Fill of sub-floor pit #1	
16/60	19	Bulk stone	Fill of sub-floor pit #1	
16/60	20	Stone tool	Fill of sub-floor pit # 1	
16/60	21	Clay pipe (Two pieces)	Floor contact at hearth (see plan)	
16/60	22	Bulk stone	Floor contact between partition and west wall.	
16/60	23	Bulk bone	Floor contact between partition and west wall.	
16/60	24	Sherds	Floor contact at west wall (plan)	
16/60	25	Mano	Floor contact at west wall (plan)	

Figure 13.

Photographic Data Sheet

When the combined Field Specimen and Photographic Data Sheet is used for photographic records, the Field Specimen Sheet designation is crossed out (Fig. 14). All photographs taken at a site are entered in numerical order. Subjects include the site before excavation commences, work progress, events during excavation, details of features, over-all views of features, views of the completed site, and views of the setting in relation to the immediate environment.

The LA site number and a sequence of numbers for that site serve to identify all photographs taken. At the time of taking, identification and description are set down on the Photographic Data Sheet. Separate sheets are devoted to black-and-white photographs and to color photographs, respectively, for each individual site; and each of the sheets has its own sequence of numbers. An exception can be made where few pictures are indicated at a given site; one sheet will suffice to accommodate both black-and-white and color photographs.

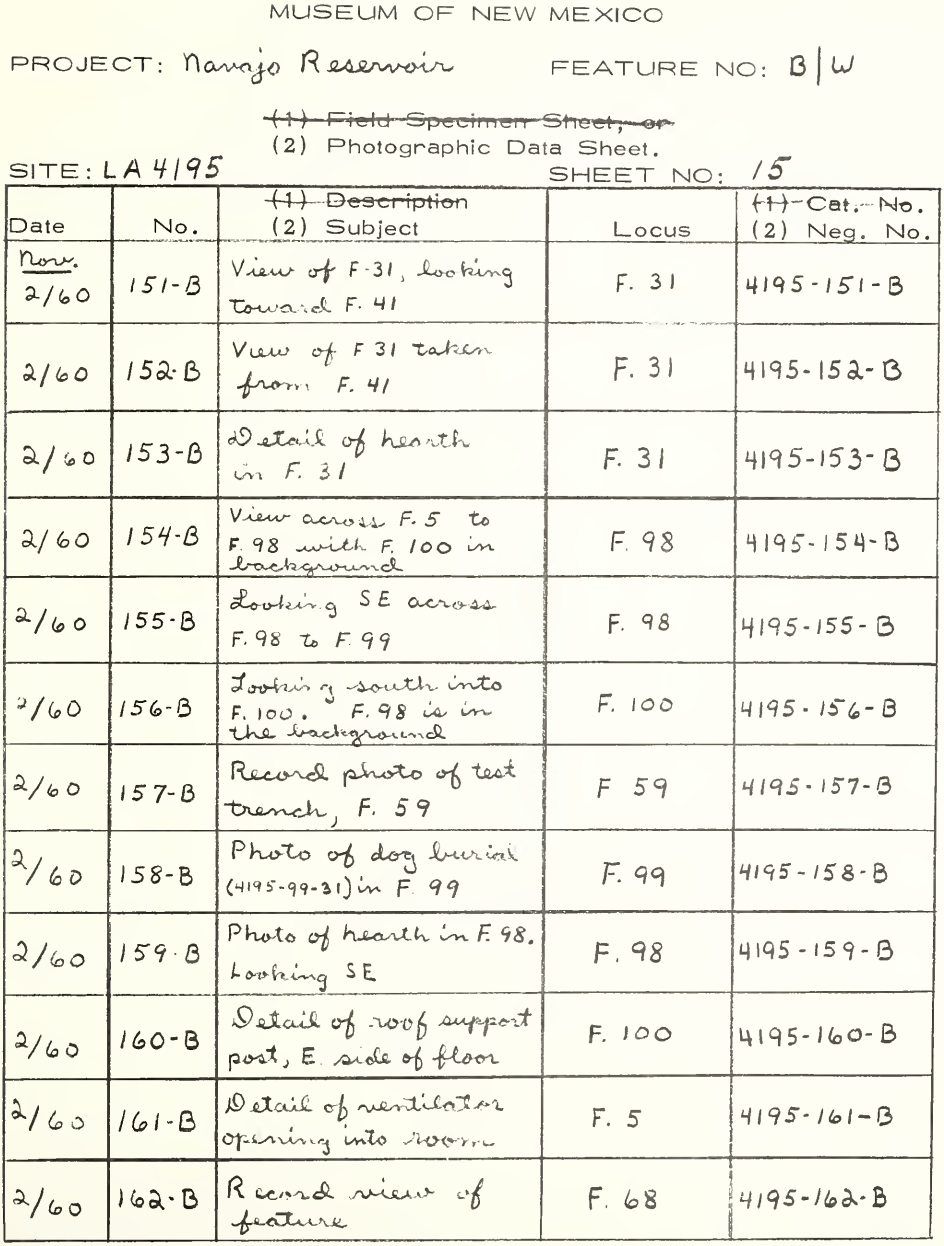
Referring to Fig. 14, the first photograph recorded is designated: first, with the LA site number, 4195; then, with the number, 151, indicating it is the 151st black-and-white taken at that site; and, finally, with the capital letter, B, standing for black-and-white. In the case of color photographs the same numbering system governs, but the final, capital letter designation would be C, standing for color.

As each photograph is taken, a number board with the appropriate number must appear in the picture. The field supervisor will keep careful track to avoid repetition of numbers. Photograph numbers are consecutive for a given site, and for the "B" and "C" series, irrespective of feature or subject matter.

Scenic or geographical pictures, taken without reference to a specific site, go into the negative file under the appropriate geographical heading. An example is the picture, Pine River-1-B.

Exposed film of all types, together with the pertinent original Photographic Data Sheets, goes to the laboratory with a minimum of delay. Laboratory personnel will process black-and-white film immediately upon receipt and forward a report to the field supervisor. Included with the report is a set of mounted and identified contact prints for each negative. Also, the negatives are placed in envelopes and filed according to the procedures set forth on pages 2 and 3.

Color film must be processed commercially. Otherwise, all the statements regarding black-and-white film apply to color. In the case of transparencies, only a report is sent; the color transparen-



MUSEUM OF NEW MEXICO

PROJECT: Navajo Reservoir FEATURE NO: B|W

~~(1) Field Specimen Sheet, or~~
(2) Photographic Data Sheet.

SITE: LA 4195 SHEET NO: 15

Date	No.	~~(1) Description~~ (2) Subject	Locus	~~(1) Cat. No.~~ (2) Neg. No.
Nov. 2/60	151-B	View of F-31, looking toward F. 41	F. 31	4195-151-B
2/60	152-B	View of F 31 taken from F. 41	F. 31	4195-152-B
2/60	153-B	Detail of hearth in F. 31	F. 31	4195-153-B
2/60	154-B	View across F. 5 to F. 98 with F. 100 in background	F. 98	4195-154-B
2/60	155-B	Looking SE across F. 98 to F. 99	F. 98	4195-155-B
2/60	156-B	Looking south into F. 100. F. 98 is in the background	F. 100	4195-156-B
2/60	157-B	Record photo of test trench, F. 59	F 59	4195-157-B
2/60	158-B	Photo of dog burial (4195-99-31) in F. 99	F. 99	4195-158-B
2/60	159-B	Photo of hearth in F. 98. Looking SE	F. 98	4195-159-B
2/60	160-B	Detail of roof support post, E. side of floor	F. 100	4195-160-B
2/60	161-B	Detail of ventilator opening into room	F. 5	4195-161-B
2/60	162-B	Record view of feature	F. 68	4195-162-B

Figure 14.

cies are mounted and placed in a slide box with proper identification.

Field Journal

The Field Journal (Fig. 15), which describes the progress of excavation at a given site, constitutes the daily log of the work in all its important aspects. It includes notes on the general appearance of the site, the immediate topography, the vegetation present, labor details, and other essential observations pertaining to the excavation work. The Journal must be written clearly in concise, narrative style. Often, such notes may require the support of sketches and diagrams, both of individual features and of the site as a whole. Each subject under discussion deserves its separate paragraph to facilitate future study. At the conclusion of the work on a given feature, a descriptive summary of that feature is required. Similarly, a descriptive summary of the entire site is indicated at the completion of work at the given site. The supervisor will set down in each case what appear to him to be the archaeological results of the effort, and the outstanding problems that it has raised. This not only provides a valuable cross-check against the Feature Forms; it aids the person who writes the final report in reconstructing the major impressions gained by the field personnel while the work was under way.

Like all other archaeological field records, the Journal is prepared in duplicate; and the supervisor numbers each sheet as he fills it out. By an appropriate heading on the sheet, he identifies the subject under consideration. Each site worked requires its own individual Field Journal. Regularly, then, each week the supervisor removes the completed original pages of the Journal for the preceding week and sends them to the Division of Research, there to be filed by site number. He retains, however, the carbon copies of those pages until the completion of work at the given site, at which time he sends these copies to the Division of Research.

Burial Form

To record the detailed description of any intentional interment, such as a human, dog, turkey, etc., the Burial Form (Fig. 16) is used. The form provides space for written description, sketch of the remains (as found), a list of associated objects, and other pertinent notes.

Should the burial pit be found within a room, for example, the burial pit can be considered as a detail of that feature. The skeletal remains, artifacts, and other items are numbered and described accordingly. If, on the other hand, the burial pit is divorced from a feature, or in a refuse mound, the burial pit should be assigned a

MUSEUM OF NEW MEXICO

Field Journal

PROJECT: Navajo Reservoir
PAGE: 55
SITE NO.: LA 4195
DATE: Oct. 27, 1960
LOCALITY: Rosa Section
NAME: Dittert

General

Only Louis Quintana and Belarmino Gallegos showed up today. Put them to work removing remainder of fill in F. 100. After filling out new sacks for them, I went back to complete work on re-evaluation of F. 2.

Sky cleared overnight and there are no clouds this morning. However, the ground is frozen and a sharp wind is blowing.

Feature 2

Decided to enlarge the test trench in F. 2 because of questions, pointed out in Eddy's notes, concerning the gravel fill on the floor. Completed enlargement of the trench and cleared floor. Found that what had been called the wall was slumped cobbles and that the floor extended under the cobbles to a thick adobe plaster.

The plaster was thick enough to act as a buttress and prevent gravels from flowing onto the floor. Plaster remains to a height of 28cm above the floor and averages 6 cm thick.

At the southeast corner of the test there is a depression in the floor. It is adjacent to the east wall of the pit house. A metate (4195-2-75) rested in the depression. There is a lip of adobe bounding the depression (See Graph Continuation Sheet 1).

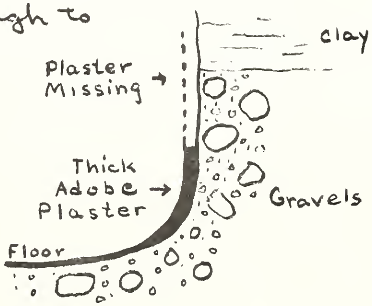


Figure 15.

separate feature number and all the necessary forms completed. The skeletal remains, artifacts, pollen samples, and other materials are identified with field specimen numbers applicable to the feature number assigned to the burial pit.

Site and Feature Map

Each site destined for excavation requires an accurate plane table map. On it are shown the arrangement of features, topography of the site, and other pertinent details such as the position of highway station stakes. Often, before excavation begins, it will prove advantageous to establish a datum point or points and construct a contour map on which features are plotted as they are dug.

In addition, there is a detailed map of each feature with cross-sections. Locate specimens on the floor; and, in each case, show its specimen number. For relatively small features, a map executed on a Graph Continuation Sheet will suffice. For larger features, use the plane table.

The field supervisor will ensure that all maps are drawn at a scale sufficiently large to show the necessary detail, being mindful, however, of the limitations that final publication imposes. Indicate on all maps the project, site number, date, draftsman, scale, and true or magnetic North or both.

Inventory of Field Forms

As soon as a feature receives its numerical designation, the field supervisor records it on the Inventory of Field Forms (Fig. 17). This form, maintained by the supervisor, provides a running record of the feature numbers used, the date work started on a given feature, and an inventory of all the forms completed for each respective feature. Further, it facilitates his checking the status of the notes which his assistants have completed. Finally, when the report writing is in progress, this form serves as an index to all the pertinent records.

Pollen Samples from Excavations

In general, procedures explained under "Collection of Surface Pollen Samples" apply here. Additional suggestions are given because of problems that arise when obtaining pollen samples from excavations. A necessary preliminary factor is complete knowledge about the site elevation, location, present vegetation, and situation. Such information is part of the Field Journal notes. Also, modern surface pollen samples must be obtained before excavation begins.

MUSEUM OF NEW MEXICO
Burial Form

PROJECT: Navajo Reservoir SHEET NO.: 1

SITE NO.: LA 4195 PERIOD: Piedra Phase RECORDER: F.W. Eddy

FEATURE: 38 LOCUS: South corner of room

FIELD SPECIMEN NO.: 4195-38-42

DESCRIPTION:

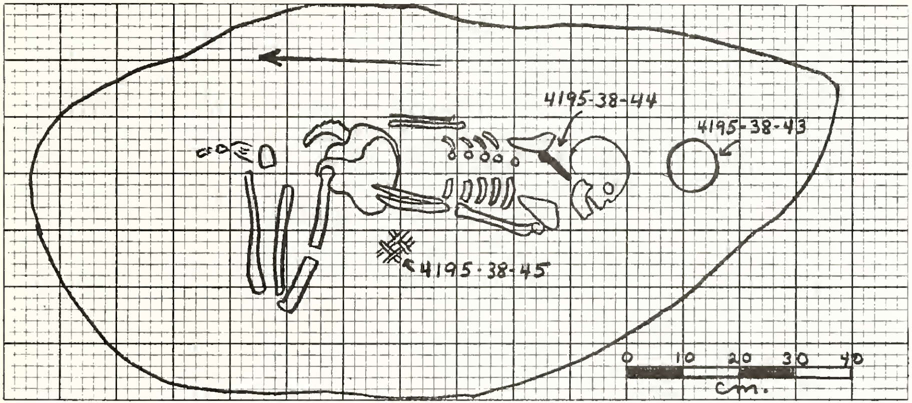
Position: On left side with legs folded and brought up perpendicular to body.

Orientation: N-S, head to south facing west

Type of Interment: Semi-flexed in elongate basin. Basin not plastered. Basin size: 1.44 m long
0.75 m wide
0.57 m deep

Adult male

SKETCH



ASSOCIATED ITEMS:

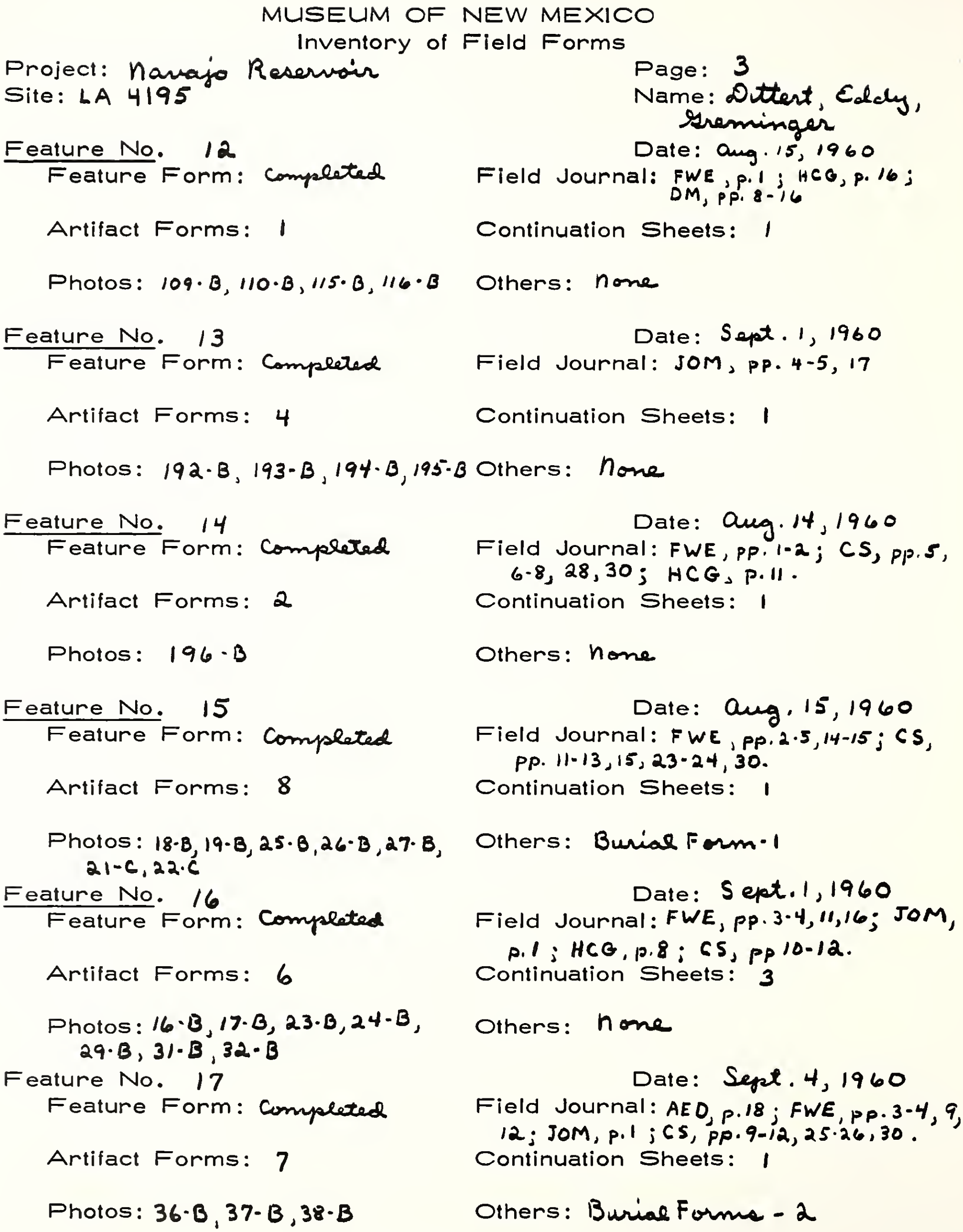
Field Spec. No.	Item	Field Spec. No.	Item
4195-38-43	B/W Bowl		
4195-38-44	Bone awl		
4195-38-45	Matting fragments		

REMARKS: Fill around skeleton contained large pieces of charcoal. Basin dug into sterile earth. Most small bones deteriorated

Field Journal Reference:
FWE, pp. 39-41

Photo. No.:
4195-66-B
4195-67-B
4195-6-C

Figure 16.



MUSEUM OF NEW MEXICO
Inventory of Field Forms

Project: Navajo Reservoir
Site: LA 4195
Page: 3
Name: Dittert, Eddy, Greminger

Feature No. 12
Date: Aug. 15, 1960
Feature Form: Completed
Field Journal: FWE, p.1; HCG, p. 16; DM, pp. 8-16
Artifact Forms: 1
Continuation Sheets: 1
Photos: 109-B, 110-B, 115-B, 116-B
Others: None

Feature No. 13
Date: Sept. 1, 1960
Feature Form: Completed
Field Journal: JOM, pp. 4-5, 17
Artifact Forms: 4
Continuation Sheets: 1
Photos: 192-B, 193-B, 194-B, 195-B
Others: None

Feature No. 14
Date: Aug. 14, 1960
Feature Form: Completed
Field Journal: FWE, pp. 1-2; CS, pp. 5, 6-8, 28, 30; HCG, p. 11.
Artifact Forms: 2
Continuation Sheets: 1
Photos: 196-B
Others: None

Feature No. 15
Date: Aug. 15, 1960
Feature Form: Completed
Field Journal: FWE, pp. 2-5, 14-15; CS, pp. 11-13, 15, 23-24, 30.
Artifact Forms: 8
Continuation Sheets: 1
Photos: 18-B, 19-B, 25-B, 26-B, 27-B, 21-C, 22-C
Others: Burial Form-1

Feature No. 16
Date: Sept. 1, 1960
Feature Form: Completed
Field Journal: FWE, pp. 3-4, 11, 16; JOM, p. 1; HCG, p. 8; CS, pp 10-12.
Artifact Forms: 6
Continuation Sheets: 3
Photos: 16-B, 17-B, 23-B, 24-B, 29-B, 31-B, 32-B
Others: None

Feature No. 17
Date: Sept. 4, 1960
Feature Form: Completed
Field Journal: AED, p. 18; FWE, pp. 3-4, 9, 12; JOM, p. 1; CS, pp. 9-12, 25-26, 30.
Artifact Forms: 7
Continuation Sheets: 1
Photos: 36-B, 37-B, 38-B
Others: Burial Forms - 2

Figure 17.

Within features, an accurate location of the sample must be known. Usually, the location is plotted on cross-sections of the feature. Samples are collected by starting at the bottom and working up; be sure that the face is cleaned by scraping at least 1.0 cm of dirt away immediately before taking the sample. This avoids contamination by wind-borne dust.

Do not collect at random; collect for a purpose. If the sample will be used for cultural interpretations, collect from the fill of a vessel, crania fill, specific ceramic or faunal deposits, and similar associations. Samples are taken whenever it is possible to relate them to a datable horizon such as one containing dendro specimens. In the case of association with relatively dated horizons, sample all units as well as materials above and below. Five samples from one horizon at one site may not be five times as good as one sample but the extra material serves as a check.

The sample size is determined in large part by the type of material. As a general rule, the coarser the sediment, the less pollen per unit volume. Cobble gravels are too coarse to use except when there is finer material in the interstices. Pea-sized gravels require about twice as much material as for modern surface silts. Organic lenses, that is, cienega soils and peat, only require a specimen as large as a fingernail.

Sampling interval is dependent on the type of site and the type of sediment. A minimal interval is 2.5 cm; the maximal interval should not be larger than 15 cm. Sediments deposited rapidly trap less pollen per unit volume. For gravels and sand, a large sample is required but the interval can be wide. Clays and organic sediments, including diatomite, do not require large samples but these must be collected using a narrow interval. Avoid taking only one sample from a lithologic unit if more can be obtained. There is no direct correlation between lithology and pollen.

In caves, one must assume slow deposition by either wind or water. Depending on the coarseness of the sediments encountered, it may be necessary to sample at 2.5 cm intervals. The interval used for arroyo banks is dependent on stratigraphy, height of section, sediment types, and other factors. Playas and very deep sections may be sampled with a palynological coring device or by driving a pipe that is 5 cm in diameter into the deposit. The core is removed and sections wrapped in foil and masking tape. Each section is labeled to denote depth from surface.

Rooms and pit houses may present different problems. Usually, samples are taken from the floor, from any layer that might represent habitation fill, from the roof fall, from the deposit immediately above the roof fall, and from regular intervals above the roof fall. An interval of 10 cm is sufficient in most cases of room or pit house fill.

If a pit is worth sampling because of its position in the site or because of its stratigraphy, it is worth cross-sectioning so that the stratigraphy is clear. A sample obtained as the pit is being dug has little value; a sample associated with a vessel in a pit is a different matter. Here, the record concerns the vessel and not the pit.

All pollen samples receive field specimen numbers.

Summary

1. Invariably, all notes and records are prepared in duplicate, the originals being transmitted to the Division of Research at regular intervals. These embrace: the day by day accounts contained in the Field Journal, the completed drawings of Graph Continuation Sheets, completed General Feature Forms, Field Specimen Sheets, Burial Forms, exposed film, and Photographic Data Sheets.

2. The field supervisor retains the duplicates until the close of the excavation work, the results of which they record, at which time, he transmits them to the Division of Research.

3. The field supervisor arranges for field specimens to be shipped or delivered to the Division of Research as often as is practicable, in all cases accompanied by an inventory of the shipment.

4. All measurements of features, distances, wall descriptions, furnishing of a house, and similar items will be made in terms of meters. If a measurement is less than one meter, place a zero before the decimal point; if it is in even meters, place a zero after the decimal point, that is, 0.25 m. and 12.0 m.

THE LABORATORY RECORDS

The organization of laboratory facilities to process materials will vary as between projects. In some cases, preliminary work can be accomplished at field headquarters; in other cases, it may prove satisfactory to carry out the entire effort at the Research Laboratory. Either arrangement will require the same type of records.

Laboratory processing is greatly facilitated if the field records have been made carefully, and if the bulk materials have been provided with separate sacks and specimen numbers. For example, bones and sherds require their respective, separate sacks; they should not be mixed. The field supervisor will ensure that, both in packing and in transport, fragile items, dendro specimens, C-14 samples, etc., receive the careful handling that they deserve.

After checking the specimens against the accompanying field inventory, they must be separated, by type of material, for cleaning. Trained workers clean sherds, stone, bone, and other bulk materials, under the direction of the supervisor assigned to process or study the given collection. He entrusts fragile items, or materials requiring specialized treatment, to the highly skilled workers. The cleaning of, and the division of the materials into study groups proceed concurrently.

Pottery Analysis Form

While problems of pottery analysis are not the concern of this Manual, the means of recording data and the use of the Pottery Analysis Form (Fig. 18) are pertinent. The pottery type, number of sherds, and percent of the total are the standard entries on the form. Ordinarily, each field specimen lot receives separate analysis. When several sacks have originated from the same locus, it is permissible to combine the field specimen numbers on one form. This fact is noted on the Field Specimen Sheet and on the Pottery Analysis Form after the Field Specimen Number heading. When numbering sherds in a combined group, use the lowest field specimen number represented.

If worked sherds, restorable vessels, or other pottery artifacts are found, give such items a specimen number following the last field specimen number for the feature concerned. Make notes of such action on the Field Specimen Sheet and in the appropriate space on the Pottery Analysis Form. Locus for a separated artifact is considered to be the specimen number of the analyzed lot from which the artifacts are extracted. The analyst sets down his remarks, if any, in the space provided on the form. He makes a note on the Field

MUSEUM OF NEW MEXICO

Pottery Analysis Form Sheet No: 1

Project: Navajo Reservoir Activity: Excavations: Recorder: AED
Site No: LA 4195 Period: Piedra Phase
Feature: 7
Locus: Floor - between partition wall and ventilator

Field Specimen No: 4195-7-79

Type	Number	Percent
Rosa Black-on-white	2	1.3
*Piedra Black-on-white	22	14.7
Bancos Black-on-white	3	2.0
Cortez Black-on-white	2	1.3
Rosa Gray	15	10.0 - 9
Piedra Gray	60	40.0 - 37
Piedra Neckbanded	30	20.0 - 21
Arboles Neckbanded	16	10.7 - 13
Total	150	100.0 - 80

Remarks: 80 sherds discarded

Artifacts: * Restorable bowl 4195-7-93.

Figure 18.

Specimen Sheet in the right-hand column opposite the proper field specimen number that the sherd lot has been analyzed.

In the case of a recently established pottery type, or of a type requiring more thorough identification, it will be necessary to set down additional observations. The analyst may note on the form, or on an attached sheet, such data as proportions of rim sherds to body sherds, proportions of vessel forms, and so forth.

Standard practice dictates that a representative sample of the sherds from a collection be retained for bulk storage. The field specimen number should be stamped on the individual sherd with a numbering stamp, and the sherds comprising the sample go, all together, in a cloth bag. Usually, all sherds saved from a given feature go into the same bag. A typewritten tag, which should be attached to the bag, will identify its contents. The number of sherds of each type that have been discarded should be noted on the Pottery Analysis Form. On occasion, some sherds may need to be separated for distribution to other institutions, or for the type sherd collection. On all such examples, the field specimen number and type name will appear, stamped.

Stone Analysis Form

Since it is impractical to examine each piece of lithic material in the field, collections of such items are made for later study and analysis. Included are all lithic materials other than structural stone, native stone carried in by natural agencies, and obvious artifacts. The detailed analysis of individual specimen lots is entered on the Stone Analysis Form (Fig. 19). In so doing, the data furnish information regarding the relative use of local and trade stone, the texture of stone used for various types of artifacts, and the relative extent of modification applied to various types of stone.

The Stone Analysis Form is considered the basic analysis form to facilitate studies along many other lines. Methods of analyzing stone working techniques, identification, and other aspects will be considered in a companion volume to this Manual.

Use of the form requires careful consideration of each fragment, though the analyst may discard most of them after he has obtained the desired information. The form has been designed primarily to furnish information regarding the suitability of the stone under consideration for particular kinds of tools or uses. Its physical characteristics, particularly as regards fracture, are what determine such suitability. The geologic designations of rocks are not a reliable guide, since the grain and fractural characteristics of a particular type of rock, such as quartzite, may vary considerably. In light of this fact, the headings, on the left side of the form under Fracture and Stone, are defined in terms of fracture reaction to stone-working methods. An explanation of the terms and headings follows:

Conchoidal - Material produces a typically cup-shaped fracture, resulting from pressure or percussion, and is suitable for pressure-chipping. (Obsidian is ideal in this respect).

Even fracture - Material is more coarse-grained and tough than the conchoidal. It does not pressure-chip satisfactorily, but is well suited to percussion-flaking. (Many cherts and quartzites fall into this group).

Irregular - Material is not suitable for knapping; it is best worked by pecking and grinding. (Diorite is a good example).

Tabular - Material has natural cleavage, which produces thin plates. (Shale and slate are typical materials).

Other - Designates a category for those materials that fail to satisfy the above descriptions. It embraces earthy materials, such as red ochre, massive clays, and pigments; crystals; mineral specimens; and concretions.

Other table headings of the form indicate the various categories of the amount and kind of modification that the given specimens have undergone, and give some indication of the relative cultural importance of them.

The headings Unmodified and Artifacts and Used Flakes are self-explanatory.

Accidentally modified - Indicates that unintentional, human modification has occurred; the stone no longer exists in its natural form. Examples are spalls and heat fractures.

Manufacture discards - Refers to irregular flakes, chips, cores, or other by-products of artifact manufacture. Cores are treated as artifacts, being saved for detailed analysis, and given specimen numbers. They are, nevertheless, counted under "manufacture discards", unless further modification has occurred for use as choppers, hammerstones, or other artifacts.

Note the two separate columns under Total. The first represents the totals in each material category; the second, the totals in each fracture group. The vertical columns serve to provide a total for each of the respective columns.

MUSEUM OF NEW MEXICO

Stone Analysis Form

PROJECT: Navajo Reservoir
ACTIVITY: Excavations
SHEET NO.: 1
SITE NO.: LA 4195
RECORDER: A.E.D.
FEATURE: 88
PERIOD: Piedra Phase
LOCUS: Fill of sub-floor bin No. 1
FIELD SPECIMEN NO.: 4195-88-12

Form / Fracture and Stone	Un-modified	Accidentally Modified	Manufacture Discard	Artifacts Used Flakes	Totals		Remarks
CONCHOIDAL						21	
Quartzite							
Jasper							
Chert							
Chalcedony	3		6	1	10		4195-88-37
Petrified Wood							
Obsidian			10	1	11		4195-88-38
EVEN FRACTURE						11	
Quartzite		5			5		
Chert							
Chalcedony							
Petrified Wood							
Igneous	4				4		
Limestone							
Sandstone							
Conglomerate							
Pedernal Chert			2		2		
IRREGULAR						6	
Quartzite							
Igneous				2	2		4195-88-39,40
Limestone							
Sandstone		4			4		
Conglomerate							
TABULAR						6	
Petrified Wood	1			1	2		4195-88-41
Shale-Slate							
Sandstone							
Schist	4						
OTHER						1	
Limonite				1	1		4195-88-42
TOTALS							

Remarks: Non-artifacts discarded. Six catalogued.

Figure 19

The analyst assigns specimen numbers to artifacts, used flakes, and pigments, or other items considered appropriate for further study. These numbers appear at the bottom of the form, and, also, on the Field Specimen Sheet. Locus is the lot specimen number from which the above items are extracted. Make additional comments regarding the collection, if varieties are identifiable with a given locality, or if the collection possesses outstanding characteristics. Save a representative sample of the lithic material from the entire site to go into bulk storage. Identify the specimens saved, with the field specimen number of the lot from which they were taken. Indicate the bulk storage location of samples in the appropriate space on the Field Specimen Sheet and on the Stone Analysis Form.

Materials for Identification

Materials such as bone, dendro specimens, corn, human skeletons, etc., destined for study by specialists, first will receive attention by the analyst in the form of checking, processing, as necessary, and repackaging. Bulk bone sacks, especially, often reveal the presence of additional artifacts, which are set aside for analysis and given specimen numbers, as in the case of stone or ceramic artifacts. List the remaining materials on Materials for Identification Form (Fig. 20). Combine, in sequential order on the one form, specimens of identical material taken from the same feature. The analyst enters only the specimen data; the chart is reserved for use by the specialist. The analyst retains the original of the form and sends the duplicate, with the specimens, on to the specialist. After the specialist has set down the required information on the duplicate, he returns it to the analyst, who, then, copies the information on the original. As earlier stated, an inventory of the specimens in each shipment accompanies the shipment; and this serves as a record for the specialist and for the analyst. When the latter receives the identifications from the specialist, he notes and dates the return of these data on the inventory sheet. This is the one and only means of keeping track of the disposition of the materials that have been sent for identification.

Artifact Forms

The first step in artifact analysis consists of grouping classes of objects and of dividing these groups into "forms". An example is the separating of hammerstones from other objects of stone; and, then, the further breakdown of the hammerstones into forms, such as, unmodified, pebble hammerstones; flaked, discoidal hammerstones; flaked, spherical hammerstones; reused, core hammerstones, etc. Next, one or more examples are selected to represent an entire form group. Pursuing the above illustration, one or more unmodified, pebble hammerstones would be selected, one or more flaked, discoidal

MUSEUM OF NEW MEXICO
Materials for Identification

Project: Navajo Reservoir Activity: Excavations Sheet No. 1

Site No.: LA 4195 Recorder: B. Dickey

Feature No.: 4 Period: Piedra Phase

Locus: Roof material, north side of pit house

Type of Material: Dendro (12) Field Specimen No.: 4195-4-12
Museum Catalog No.

No.	Cat. No.	Age and/or Part	Identification
1	RG-3826	no date	*Juniperus* sp.
2	RG-3827	814p-895r *	*P. ponderosa*
3	RG-3828	*	*
4	RG-3829	*	*
5	RG-3830	837p-878vv	*P. ponderosa*
6	RG-3831	no date	*Juniperus* sp.
7	RG-3832	"	"
8	RG-3833	"	"
9	RG-3834	"	"
10	RG-3835	"	"
11	RG-3836	"	"
12	RG-3837	"	"

Remarks: * Same original specimen
Information from Laboratory of Tree-Ring Research

Figure 20

hammerstones, etc. Then, each example receives a detailed description, set down on the Catalog Description Form (Fig. 21). Additional examples of the same form receive similar attention, and are tabulated on the Artifact Form (Fig. 22), which supplements the Catalog Description Form.

The Catalog Description Form, executed in triplicate, can serve two purposes: it provides a detailed description of a given artifact; and, if the artifact is cataloged, it serves as a source of the information destined for McBee Keysort Cards. The Catalog Description Form contains descriptions of those items which will be illustrated in the report. Note, however, that only exceptional material is completely cataloged; most items go to bulk storage. (See Catalog and Collection Records for an amplification of the above, and for instructions for setting down the required information under the appropriate headings of the form).

The Artifact Form records statistics and observations on additional samples of the forms described on the Catalog Description Form. Since the measurements and observations vary with the artifact classes, the researcher supplies the appropriate headings to the blank columns. Often, as in the case of manos, hammerstones, and cores, all but the representative samples are discarded, which fact requires noting in the space provided.

The theoretical approach to typology varies, quite properly, with the individual researcher; otherwise, no new concepts would develop. However, if one collection is to be compared with another, a certain degree of standardization is indicated. The Museum of New Mexico, Division of Research, accordingly, has adopted a minimum set of measurements and observations, with standardized nomenclature for the attribures of artifacts; and this system provides the comparative information required. This system is described in the companion volume to this Manual. Having met the minimum standards, the researcher's imagination, supported by experience, will have free rein, then in carrying on observations, analysis, ordering, and interpretation.

Summary

1. Materials sent in from the field become the responsibility of the supervisor, or supervisors, assigned to process and study the collection.

2. Field specimen numbers are checked against the field inventory; or, if the preparation of a field inventory has proved impracticable, Research Laboratory personnel will make an inventory, that is, a record of the materials received.

MUSEUM OF NEW MEXICO
Catalog Description Form

Catalog No.: none
Accession No.: none
Accession Date: none
Owner: Museum of New Mexico
No. of Items: 1
Old Cat. Nos.: 3427-3-311

Cataloger: A. E. Dittert
Use: Tools and Implements
Condition and Repairs: Complete

Source of Accession: Navajo Reservoir Excavations, 1958

Item: Core
County/State/County: U.S.A., New Mexico, San Juan
Locale: LA 3427, Feature 3, Level 5
Culture: Anasazi
Ethnic Group: -
Artist/Maker: -
Period: Piedra Phase A.D. 850-950
Identified By: A.E. Dittert
Preservation: None

Paid: none
Negative No.: none

Estimated Value: none

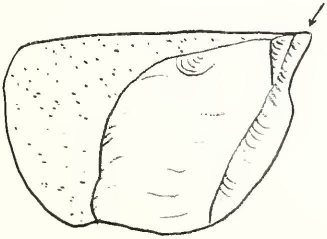
Description: Flat Core - Flaked from one face

Core formed from selected bench or river cobble.
Faces of core are essentially parallel.
Striking platform is face of core. Was not prepared.
Flakes removed by striking on one face only.

Size: 4.1 cm. thick
5.6 cm. and 7.0 cm. diameters

Weight - 173.0 gms.

Angle between striking platform and flake scar averages 65°.
Use of direct hammerstone technique.



1:1

Remarks: Bulk storage - B7W
To be illustrated in site report.

Figure 21.

MUSEUM OF NEW MEXICO
Artifact Form

PROJECT: Navajo Reservoir — LA 3427

Flat Cores - flaked from one face — (Thickness and diameters in centimeters)

Field Specimen No.	Material	Thickness	Dia.	Dia.	Angle	Wt. (gms)		Remarks	
3427-1-26	quartzite	3.0	3.2	4.3	70°	52.0		Circumference flaked	X
3427-1-23	quartzite	2.2	3.7	6.1	75°	105.5		Circumference flaked	X
3427-3-24	quartzite	2.9	3.8	3.3	65°	43.5		Circumference flaked	B
3427-3-157	quartzite	2.7	4.0	5.3	80°	73.0		One edge flaked	X
3427-3-329	quartzite	3.5	4.9	8.0	80°	221.5		Two edges flaked	X

Distribution

Feature 1 (Rosa Phase)
  3427-1-26
  3427-1-23
Feature 3 - Test (Piedra Phase)
  3427-3-24
Feature 3 - Level 4 (Piedra Phase)
  3427-3-157
Feature 3 - Level 5 (Piedra Phase)
  3427-3-211
Feature 3 - Level 6 (Piedra Phase)
  3427-3-329

Remarks

Sample too small. What is present does not suggest changes in technique. The only suggestion of a change is that the cores of the Piedra Phase average thicker and heavier than those of the Rosa Phase. The same condition is represented in other types of cores.

X - discarded
B - bulk storage (B7W)

Figure 22

3. Next, comes the sorting of the materials into appropriate groups for cleaning, processing, and study.

4. Analysis records are prepared in duplicate. Ultimately, the original goes to the original field record file, and the same is true of the duplication, that is, to the duplicate file.

5. Artifacts separated from bulk field specimen lots receive field specimen numbers beginning with the first free number for the feature concerned. This information, then, should appear on the Field Specimen Sheet and on the appropriate analysis form. Locus is the field specimen number of the lot from which the object was taken.

6. A copy of the Materials for Identification Form and a copy of the shipment inventory accompany the specimens which the analyst sends to the specialist. When the specialist returns the form copy with the identification information, the analyst enters this information on the original of the form, which he had retained.

7. The initial step in artifact description consists of selecting representative specimens from the forms that are present. These specimens are described in detail on a Catalog Description Form. Additional, representative specimens from the same form receive similar attention and are recorded on the Artifact Form. The descriptions follow minimums established for measurements and the nomenclature of attributes. Interpretation of the results of the study depends upon the nature of the collection and the methods by which it can be organized.

8. The Laboratory Record is as complete and as formalized as the Field Record. The two, when combined, constitute the total site record.

9. All measurements of artifacts are made in centimeters and decimal fractions thereof; the weights of artifacts are recorded in grams and decimal fractions thereof, for example, 1.8 centimeters; 32.5 grams.

THE CATALOG AND COLLECTIONS RECORDS

In the course of laboratory processing, the various alternatives of ultimate disposition of artifacts require consideration and decision. These are, usually: (a) placing in bulk storage, (b) cataloging, (c) distributing, (d) sending to a specialist, who may retain them, or (e) discarding. If the terms of the contract or permit which controls the working relationship of the Museum of New Mexico with a cooperating agency require it, the proper division of artifacts with the agency is indicated. Once the preliminary steps of cataloging have been accomplished, and objects have been prepared for bulk storage, or set aside for distribution, they then become the responsibility of the Curator of Collections. This official is, also, responsible for the transfer of objects to the cooperating agencies, referred to above.

Bulk Storage

Most items saved from a collection go to bulk storage. The Curator of Collections maintains a register of all the stored materials and of their location. Insofar as practicable, all bulk storage items from a given site are stored together, the exceptions being objects of extra-ordinary size, which require special storage locations. This system, then, facilitates the study of the representative items, which provides information useful for synthesis, re-evaluation, and comparison.

Non-artifactual samples may, also, be deposited in bulk storage. Funds may not be available immediately for the study of certain samples that will provide study material later. Other samples are saved against the day when those new techniques develop which increase their importance and their value. The fact that given items are placed in bulk storage is noted on the Field Specimen Sheet; all items so disposed of are labeled with the field specimen number.

Catalog

If the Curator of Collections decides that a given object is suitable for exhibit purposes, it is cataloged. The researcher completes the Catalog Description Form (Fig. 21) in triplicate. The original and first copy are retained for the site record files; the second copy and the artifact are transmitted to the Curator of Collections. A catalog number, accession number, and the accession date are entered on the form. In addition, the catalog number is entered on the Field Specimen Sheet in the right-hand column opposite the field specimen number of the object. At this point, the researcher's responsibility for the object ends.

At least one artifact from each site is catalogued so that the existence of materials from a site is evident in the catalog cards. The fact that other items from the same site are located in bulk storage is noted on the card as an aid to other researchers.

Headings on the Catalog Description Form provide the information essential to filling out and code-punching the McBee Keysort Cards, which are used as a card catalog. For archaeological specimens, the following information is required:

Catalog Number, Accession Number, and Accession Date are discussed above.

Owner, in most cases, is the Museum of New Mexico.

Number of Items, in most instances, is 1, but typical exceptions would be a cache of kiva bells, the contents of a medicine kit, or a quiver of arrows.

Old Catalog Number here refers to the field specimen number.

Cataloger is the individual who completes the form.

Use is described in terms of the categories established for the punch card system, which include:

A. Habitation and Household Furnishings.

B. Household Utensils.

C. Foods, Food Quest (traps, fishing gear, agricultural implements), Medication, Narcotics, Tobacco.

D. Clothing, Personal Adornment, Jewelry, Cosmetics.

E. Industry, Craft (including non-specialized tools which may have other uses, such as household and agricultural implements), Transport, Wealth.

F. Offensive and Defensive Weapons and Protective Devices.

G. Pleasure and Amusement (toys, games), Musical Instruments, Symbols of Rank or Prestige, Religious Objects, Other Objects (the use of which is problematical), Curiosities, Samples (for comparison).

H. Art, Ornament, Writing, Maps, Molds, Casts, Models.

I. Mortuary Objects, Human Skeletal Remains.

Condition and Repairs may require some such statement as, "restored from sherds."

Source of Accession is the name of the project that obtained the object.

Estimated Value is left for the Curator of Collections to determine.

Item is the form of the artifact being described.

Country/State/County indicates the political district from which the artifact comes.

Locale is the site number and locus within the site.

Culture is the major archaeological division, e. g. Mogollon.

Ethnic Group and Artist/Maker are rarely known for archaeological specimens.

Period is the named archaeological period and its approximate dates.

Identified by is self-explanatory.

Preservation refers to any special process applied to the object.

Paid applies only to items purchased.

Negative number is identical with the catalog number. (Roll number of the negative is entered on the card by the Curator of Collections, after a record photograph has been made).

Description is given in terms of the established system of measurements, observations, and nomenclature. The material from which the object is made is included under this heading. Headings applicable to units on the McBee Keysort Cards are:

1. Clay, Ceramic

2. Metal
3. Glass, Plaster, Plastic, Rubber
4. Rock, Mineral
5. Wood, Reed, Vegetal Fiber, Vegetal Fiber Textile (cotton, linen, tapa cloth, etc.), Paper
6. Bone Antler, Horn, Teeth, Turtle Shell, Bird Egg Shell
7. Skin, Hair, Feather, Flesh, Animal Fiber Textile, Quill
8. Sea or Fresh Water Shell
9. Seed, Nut, Fruit, Vegetable, Gourd

Remarks cover any pertinent details of association, comparisons, or unusual aspects (e.g., a reference to today's use of an identical item by Pueblo Indians).

The Curator of Collections can supply, upon request, extra proof sheets of the photographs of the item which are attached to the form. If the drawing of a cross-section of other details will amplify the description, make such.

The Museum of New Mexico usually distributes sherds of recently established pottery types to the interested institutions, after having stamped them with the type name and field specimen number. The Curator of Collections keeps a record of such distribution; it is the researcher, however, who separates the material to be sent away. Objects traded to other institutions are entirely the responsibility of the Curator of Collections.

Discarded Objects

Discarding is indicated for sherds other than representative examples, and for most bulk stone, after the proper records have been made. This same procedure applies to objects such as manos, metates, hammerstones, and broken mauls. Whenever an object goes to the discard, make the appropriate note on the Field Specimen Sheet.

PUBLICATIONS

The last type of record for archaeological field projects is the publication. Before the author prepares his manuscript for publication, he should study carefully the following instructions, which provide detailed guidance to help in the presentation and organization of his factual data. While the format described is not universally applicable to all projects, the primary purpose of these instructions is to provide a logical, uniform order of presentation. The goal to be sought is, at once, conciseness and brevity, and the avoidance of lengthy, verbal description, whenever graphic presentation can achieve more effective communication.

It is vitally important to maintain the required consistency of rank headings, so as to convey clearly to the reader the logical divisions of subject matter on a descending scale. Indicate the proper rank in parentheses at the extreme left of the sheet, as shown in the examples that follow.

By all means, prepare an outline before beginning the actual writing of the report. The Editor will check it for style and arrangement, and the Associate Director for Research, or the Curator of Archaeological Research, as the case may be, can discuss with the author the proposed content of the report.

Organization of Manuscript

All manuscript will be typed with good, black ribbon on non-erasable bond paper, double spaced, approximately 4 1/2 inches wide, centered on the page, with adequate margins top and bottom. This provides space for editorial entries. Indicate the appropriate rank heading in the left-hand margin. Make a carbon copy to provide against loss or damage of the original and, also, for cross-reference purposes. Citations should appear as in the following example: (Wendorf, 1945, p. 27). Number the pages consecutively, from the title page to the end of the bibliography. Insert the illustration pages in their proper places, and number them, following the manuscript page with numbers such as 122a, 122b, etc. On such illustration pages, paste contact prints of photographs, with the crop marks drawn. Indicate all illustrations in their proper proportion. All illustrations should contain figure number and caption at the bottom, and some indication as to whether they are photographs or drawings, and their recommended size reproduction in the book: that is, whether one column, half page, full page, or fold-out, etc. Make the effort to limit the size of the original drawing to 18 inch maximum dimension.

Rank headings for subjects must be indicated clearly. The headings are used as guides by the compositor or by the typist when producing the repro-copy for printing. The following form is used:

(title) TITLE OF THE REPORT (appears only on title page)

(1) CHAPTER 1

TITLE OF THE CHAPTER (centered on page)

(2) First Subject of Chapter (centered on page)

(3) First Sub-heading (centered on page)

(4) DIVISIONS OF RANK 3 (at left margin)

Begin text here under rank 4 heading.

(5) Divisions of Rank 4 (at left margin)

Begin text here under rank 5 heading

When the manuscript is printed, the printer hand-sets the title on the cover and on the title page. Rank headings 1 and 2 will be set in display type. Rank 3 may be set in display type but this depends on arrangements with the printer.

As a general rule, the author should attempt to present as much raw data as possible in charts, photographs, or other graphic forms. Many details can be elucidated in the captions of figures. This figure caption will suffer reduction to 70 percent in the final publication with the result that, while the details will be available and easily decipherable if required, the major emphasis in the text centers upon expressions of interrelations, comparative data, and synthesis.

Suggested Format

Necessarily, the data from fieldwork must be organized into a logical sequence proceeding from one unit of information to another. Although the following format is not applicable in all cases, it does outline a sequence for the presentation of data that is easily understood.

(1) PREFACE

Include the general location, dates of research, arrangements necessary, program governing conduct of the work, landowner, who accomplished the work, acknowledgements, and other noteworthy items.

(1) CHAPTER 1

LA 6472: PROBLEMS AND RESULTS

Introduce the site and mention briefly the cultural and temporal placement, outstanding discoveries, reasons for excavations, and amount of work accomplished. For an example, see Breternitz (1959, p. 1).

(2) The Site

(3) Setting

Give specific location and describe the environment, resources, geology, and similar items.

(3) Description

Describe surface indications, ways in which the inhabitants modified the area to accommodate units or took advantage of existing conditions, the number of units, and the arrangements, style of architecture, and other facts required to provide a mental picture of the site.

(2) Research Procedures

Outline methods of working the site as a whole. Describe specialized problems in certain areas of work.

(2) Conclusions

Give a brief statement of what was found and the cultural implications derived from the data.

(1) CHAPTER 2

ARCHITECTURAL MANIFESTATIONS

(2) Generalized Architectural Details

Divisions will, naturally, depend on the type of site and of the number of occupations. First, set down a general description of the architecture at the site. Then, take up individual details such as:

(3) Types of Structures

(3) Nature of Super-structure

(3) Varieties of Hearths

(3) Storage Pits
(and so forth)

Under appropriate headings, describe the forms of the details. Indicate which are the normal forms and which are variations. Changes in forms through time should be discussed. Use detail photographs or drawings in this section.

(2) Integration of Architectural Details

Rank 3 headings in this section are the individual structures. For each, give an integrated description that combines the architectural details, types of artifacts on the floor, distinctive arrangement of details, and similar information. Amplify the descriptions with plans, cross-sections, pictures, and other illustrative material for each structure.

(2) Architectural Resume

A brief review of the architecture is given along with settlement patterns, patterns expressed in the arrangement of architectural details, variations in the patterns, and changes in the patterns through time.

(1) CHAPTER 3

ARTIFACTS AND NON-ARTIFACTUAL REMAINS

(2) Artifacts in Categories

First, there is a brief summary of the artifacts. Then, there are the divisions based upon details of forms, types, or other criteria, listed under rank 3 headings. Make use of adequate graphic presentations and keep the verbal description to a minimum.

(2) Non-Artifactual Data

A summary of the data should precede the categories considered under non-artifactual remains. The categories are identified as rank 3 headings. Again, make use of graphic presentation and keep verbal description to a minimum.

(2) Burial Practices

Begin the section with an analysis of the burial practices. When only a few burials are found, it may be necessary to describe these individually. In other cases, burials may be divisible into groups and treated in a similar manner to that for artifacts. This subject may, on occasion, merit a separate chapter.

(1) CHAPTER 4

CHRONOLOGY

This is a summary of the dates and the methods used to obtain them. Rank divisions will depend on the data available.

(1) CHAPTER 5

SUMMARY AND CONJECTURES

Introduce controversial material here. Also, provide a resume of the results obtained.

(1) APPENDICES

(1) BIBLIOGRAPHY

Format for Bibliography

Use the most recent Museum of New Mexico publications as models, bearing in mind the following rules:

1. Never use quotes around title.

2. Always put period after title.

3. Underlining:

    Book - underline title
    Article - underline title of journal

If the paper is part of a volume, consisting of a compilation of papers, use the following form:

Bullard, R. Jr., and F. E. Cassidy
date The San Juan Pipeline Project: LA2507. In Pipeline Archaeology, Fred Wendorf, Nancy Fox and Orian L. Lewis, editors. Santa Fe and Flagstaff.

4. Multiple authors:

    Last name of lead author, his initials, initials of next author, and his last name, etc.

    Example: Wendorf, F., J. E. Doe, R. K. Roe and E. P. Brown.

5. Publisher

    Examples:

Smith, Watson
1952 Excavations in Big Hawk Valley, Bulletin 24, Museum of Northern Arizona, Flagstaff.

Newcombe, Frank Johnson
1940 Navaho Omens and Taboos. The Rydall Press, Santa Fe.

Dittert, A.E., Jr., J.J. Hester and F. W. Eddy
1961 An Archaeological Survey of the Navajo Reservoir District, Northwestern New Mexico. Monographs of the School of American Research and the Museum of New Mexico, No. 23, Santa Fe.

Reference in Text

References in the text are given by using the last name of the author, the date, and page number, all enclosed in parentheses at the end of a sentence, or at the end of the proper clause in compound sentences. For example:

> ..... according to Bryan and Toulouse (1943, p. 277).
> ..... site unit intrusion of Pueblo Indians (Lathrop, 1953, p.9).
> ..... use of scroll and dot decorations (Jones, 1960, p.43); or a combination of scroll and dot with hachures (Brown, 1955a, p. 17).

If "page", "figure", or "table" is used in reference within the parentheses, use lower case letters: (White, fig. 1).

If "figure" or "table" referred to is elsewhere in the paper being read, use lead capitals. For example:

> .....as shown in Table II. or....pottery types (Table I).

When reference in the text is first made, use complete citation. If another reference to the same publication is made in the same paragraph and the second reference is not separated from the first by a citation to another author, the page reference is sufficient. For example:

> .....split bone awls (Kidder, 1932, p. 211) ..... and manos, (pp. 66-67).

In a new paragraph, the entire citation must be made.

When there are two authors of a book, both names must be used in each citation, such as, (Jones and Brown, 1950).

In the case of three or more authors, all of the names are used in the first instance, for example, (Dittert, Hester, and Eddy, 1961). All future references to this publication may be given as (Dittert, et al., 1961).

Sentence punctuation always goes outside the parenthesis.

Style Sheet for Numbers

1. When a sentence begins with a number, always spell it out.

> Four examples were cited by the author.

2. Generally, spell out numbers of less than three digits.

There are twenty-eight sites.
The survey covered 750 acres.

3. Use the "all-number" form for numbers of more than six digits.

2,000,000 acres, not 2 million acres.

4. Exceptions:

Use figures with abbreviations - Fig. 2, No. A756.
Use figures for numbered illustrations - Table 8.
Use figures when decimals are involved - 4.5 miles.
Use figures with degrees - 50° angle.
Use figures with percent - 25.3 percent of the sherds.
Express page numbers in figures - See page 5.
Date is expressed in figures - 250 B.C. to A.D.325.

5. When expressing measurements, use a zero before the decimal if the number is smaller than one - 0.25 cm. If the number is an even figure larger than one, place a zero after the decimal - 23.0 cm.

6. There is a series statement which occurs frequently, and which requires the handling shown in the following illustration - The components are: Lithic - 5; Los Pinos - 1; Rosa - 30; and Rosa, Piedra, and Arboles Phase group - 12. When only two such counts are listed without complicating modifiers, the dash is omitted - These components are Lithic 5, and Los Pinos 1.

7. Another statement involving numbers which is frequently used require handling of the following type - The largest number of sites (17 examples) on Burnt Mesa.....

8. In the interest of good style, it is often preferable to write out round numbers above two digits when the number occurs in a context such as - More than two hundred hogans are .... However, it may prove best to leave all numbers in figure style, irrespective of the number of digits, when comparable figures of three digits or more occur in a sentence - There were 149 sites, of which 102 are on the first bench and 47 are on the mesa top.

9. When questions arise concerning numbers and none of the above rules apply, the editor should be consulted.

Style Sheet for Spelling

When a choice exists between the foreign spelling of a given word and the American spelling, choose the latter. In the case of a word that may be spelled either with an "ñ" or a "y", use the latter as in "canyon" and "pinyon". Also, "color" is preferred to "colour". The anglicized plurals "maximums" and "minimums" will be used. Obviously, the plural words "data" and "agenda" must remain unchanged.

Instances will arise in which the foreign term is the only one that will be applicable to a particular type of structure, settlement pattern, or artifact. When this term is used, it is italicised. An explanation of the term is given when it is first used. Whenever possible, a substitute American word or phrase should be included in the definition and used thereafter. If the substitute phrase is unwieldy, continue to use the foreign term.

Geographical names, and the proper spelling thereof, present many problems for which simple rules are not available. Agencies have been organized to investigate and standardize geographical names. However, many errors have been made by such groups and it is not possible, in every case, to accept the designations. In general, names listed on U.S.G.S. maps may be used as the proper designation and spelling. If there are historical changes in the name, conflicts with other maps, or disagreements with usages by the local residents, an explanation should be given. When there are alternate ways of spelling the names of small villages, the U. S. Postal Guide will be useful as a reference. Highway maps issued by various oil companies should not be used as the authoritative source.

Many names and terms in the Southwest have been adopted from the various Indian groups. When such names or terms are employed, avoid, whenever possible, using phonetic symbols that can not be reproduced on a standard typewriter. Variations in the spelling of a native term or name frequently are encountered. Such differences necessarily must be resolved by the author with the approval of the editor.

The approved spelling of many words frequently used by archaeologists in the southwestern United States appears below:

One Word

atlatl
backhoe
beeweed
biconcave
biconical
bifacial
bimodal
blowout
campsite
cattail
corncob
countryside (usually)
goosefoot
greasewood
hammerstone
hearthstone
homemade
layout
millingstone
outcrop
overlook
overpass
pipeline
prehistoric
radiocarbon
reoccupation
reused
sagebrush
saltbush
sandstone
sheepherder
sheetwash
squawberry
squawbush
subfloor
superimpose
unmodified
wavyleaf

Two or more words

corner notch point
dam site
fire pit
flood plain
flood water
globe mallow
ground water
mesa top (noun)
mud dome
one half
pit house
post hole
power line
rabbit brush
side notch point
water table
way of life

Hyphenated words

backhoe-days
Black-on-white (on-red, etc.)
broad-leaf (yucca-cottonwood)
catch-all
cobble-ring (adj.)
cross-section
dry-farmed (verb)
fire-cracked (adj.)
flat-topped (adj.)
hand-finished (adj.)
heat-fractured (adj.)
hollow-edged (adj.)
leaf-shape (adj.)
lean-to
man-days
mesa-top (adj.)
narrow-leaf (yucca; etc. adj.)
one-hand mano
over-all (over everything)
pick-up
pointed-bottom pottery
per-ceramic
right-of-way
run-off
semi-annual
semi-arid
side-notched (adj.)
single-unit (adj.)
slab-base
straight-sided
two-hand mano
worn-out

Capitals

In spelling the names of phases, periods, sections, or areas, always use the upper case for the first letter. The following are examples - Rosa Phase, Pueblo Period, Navajo Reservoir District, Arboles Land Form, and Bancos Section. When the words referred to are used without the identifying title or theme, descend to the lower case for the first letter - This phase is characterized by .... The dictionary or style manuals should be consulted when questions arise concerning other uses of capitalized terms.

Abbreviations

As a general rule, abbreviations should be avoided. However, there are instances when abbreviations are permissible. In the case of words such as "figure", "page", and "plate", an abbreviation is used when the word is enclosed by parentheses. When these words are used in the text, they are written out.

Throughout the text, spell out all State names and place names. In the Preface, it is permissible to refer to Santa Fe without the identifying State name. Having once identified a given place as to State, the State need not be repeated later in such a connection.

Most measurements are expressed in the metric system but it will be necessary to utilize the English system when relating the site to a highway construction station, map location, or similar datum points. Also, when referring to the work of other agencies, it may be necessary to express a measurement in feet. Write out all words expressing measure in the English system. In some instances, units may be abbreviated after an explanation of the abbreviation. For example, "cubic feet per second" becomes "cfs" in the text that follows. On the other hand, words expressing measure in the metric system are abbreviated; centimeter becomes cm., meter becomes m., and so forth.

Manuscript and Proof Marking

1. On proofs, make the necessary corrections in the body of the text and, also, in the margin, opposite. On manuscript pages, make the correction only in the body of the text.

2. If a small letter should be capitalized, mark it thus: "$\overset{uc}{\underline{\underline{\underline{h}}}}$enry." Use "lc" for lower case letters, "uc" for upper case letters. Use "sc" to indicate need for small capitals in connection with dates: "$\underset{sc}{\underline{A.D}}$. 1960".

3. Underline to indicate need for italics, as, "*Henry*."

4. Use a connecting line to indicate no paragraph indentation: and further indicate with the note, " No ¶."

5. To indicate an inserted word, or words, mark with a caret, if there is room: "Henry$\overset{\text{is}}{\wedge}$- - -"; otherwise, with the word (or words) in the margin, as near the caret as practicable.

6. Circle instructions or editorial queries in the margin to preclude their being mistaken for copy.

7. Erase, or mark out clearly and strongly, the desired deletions. Use the symbol ₰ to indicate deleted items. To delete a hyphen, use close-up marks, thus: $\overset{\frown}{\underset{\smile}{-}}$. To indicate need for a space between two words, make a slant mark between them, or use the mark #.

8. To restore words crossed out, write "stet" in the margin, and place dots under the words to be kept.

9. To transpose adjacent letters, words, or phrases, draw a line under the one and over the other, and write "tr." in the margin.

10. In case an abbreviation or a number should be spelled out, draw a circle around it.

Map and Line Drawings

A. General

1. The researcher is responsible for the layout and execution of all maps and line drawings in pencil.

2. The researcher will outline clearly all instructions, including letter size and line width, for the draftsman who will ink-in the figure. Arrangement of artifacts, placement of cross-sections, and type of shading film used are the responsibility of the researcher. Further, the researcher will supervise the inking-in process.

3. The researcher will provide the draftsman with examples to illustrate the style desired. Pattern final execution of the map to conform with recent Museum of New Mexico products.

B. Layout

The map drawing should be larger than the final reproduction. Calculate the desired size to which the map drawing is to be reduced, using any one of the following three methods:

1. By proportion: Let a equal the height of the copy, and b the width. Then a:b::A:B (or a:A::b:B).

2. Graphically: First, draw a rectangle the size of the copy; then draw its diagonal. The diagonal, or its prolongation, will be the diagonal of all reproductions of the same proportions.

3. Use the Graphic Proportion Dial, a device similar to a circular calculator. By setting the dial and the adjustable hand for a given size, one can obtain the size and placing of any reproduction of the same proportions by moving the numbered scale.

C. Size

1. The original map drawing must be at least twice the size of the final reproduction.

2. On an 8.5 inches x 11 inches page, the size of the map (or figure) and its caption is limited to 6.75 inches (wide) x 8.75 inches (high) as a maximum. For El Palacio (page size 7 inches x 10 inches), the maximum size of the map or figure and caption is 4.6 inches x 7.1 inches.

D. Lettering

1. Execute all lettering with Leroy pens and templates, vertical for cultural features, slanted for drainages.

2. For cultural features, use upper case letters.

3. For drainage, use upper and lower case letters.

4. Letter the following, as regards size and intensity of the letters, in diminishing order, as set down below:

a. State
b. Unit of research (site, area, etc.)
c. Town and other cultural features
d. Drainage

E. Symbols

1. To the extent practicable, use U.S.G.S. map symbols.

2. In the inking-in process, subordinate cultural symbols to

research symbols.

F. Borders

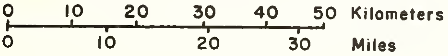
1. Use two lines of identical width, which, when finally reduced, will equal the width of a oo line (Leroy).

2. Place latitude and longitude designations between the framing lines. The letter lines, when reduced, should equal ooo pen (Leroy); and the letter size, one-half the height of the letters on a Leroy template 100.

3. Place township and range designations immediately inside the inner framing line; both the line and letter size to equal those of the latitude and longitude.

G. Scale

1. Use both miles and kilometers, as shown below:



H. Miscellaneous

1. Where possible, use a "step down" series of maps in the report, for example: one depicting Four Corners Area; another, the Navajo Reservoir District; then, a third, depicting locality in the reservoir.

2. In the case of a short report in which only the locality need be shown, use an inset of the State (or States), which should be labeled and have indicated on it the major drainage. Indicate on it, also, the locality, using a black square or rectangle.

3. In the case of a compilation of reports, such as a Highway Salvage volume, include a frontispiece map to depict all the localities of which the volume treats.

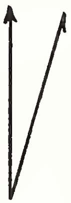
I. North Arrows

Indicate north on all maps. It may prove impracticable to so orient the map as to make north the top of the page. True north indication is preferable, though magnetic north is acceptable.

An arrow with double barb indicates true north, while one with single barb indicates magnetic north; and the single barb is placed on the side of the arrow away from true north:

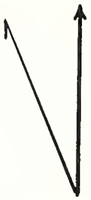
East magnetic declination

(New Mexico)



West magnetic declination

(Maine)



J. Page Layout

Standard page sizes with formalized text layouts are used for Museum of New Mexico publications. The author should refer to other copies of the series in which the manuscript will be published. Also, he should determine the per cent of text reduction, the use of single or double columns, the per cent of caption reduction, and other factors before production of figures and final repro copy.

A sample page layout is illustrated in Figure 23. This is the one used for most volumes of the Museum of New Mexico Papers in Anthropology. When figures are prepared, the original must be proportioned so that the reduced size will be 3 1/8 inches wide for a single column, or 6 3/4 inches wide for the double column. When calculating length, include space for the caption.

Wide figures may be placed at a right angle to the page. In such cases, the visual top is always to the left and the caption is always to the right. The rule applies to figures positioned on either the right or left page.

The text on a page, such as Figure 23, is usually reduced to 85 per cent. Repro copy 3 5/8 inches wide is submitted for text that will be 3 1/8 inches wide. Captions are reduced to 70 per cent and the repro copy is submitted 4 1/8 inches wide for a single column. The reduction of the text should remain constant throughout the paper.

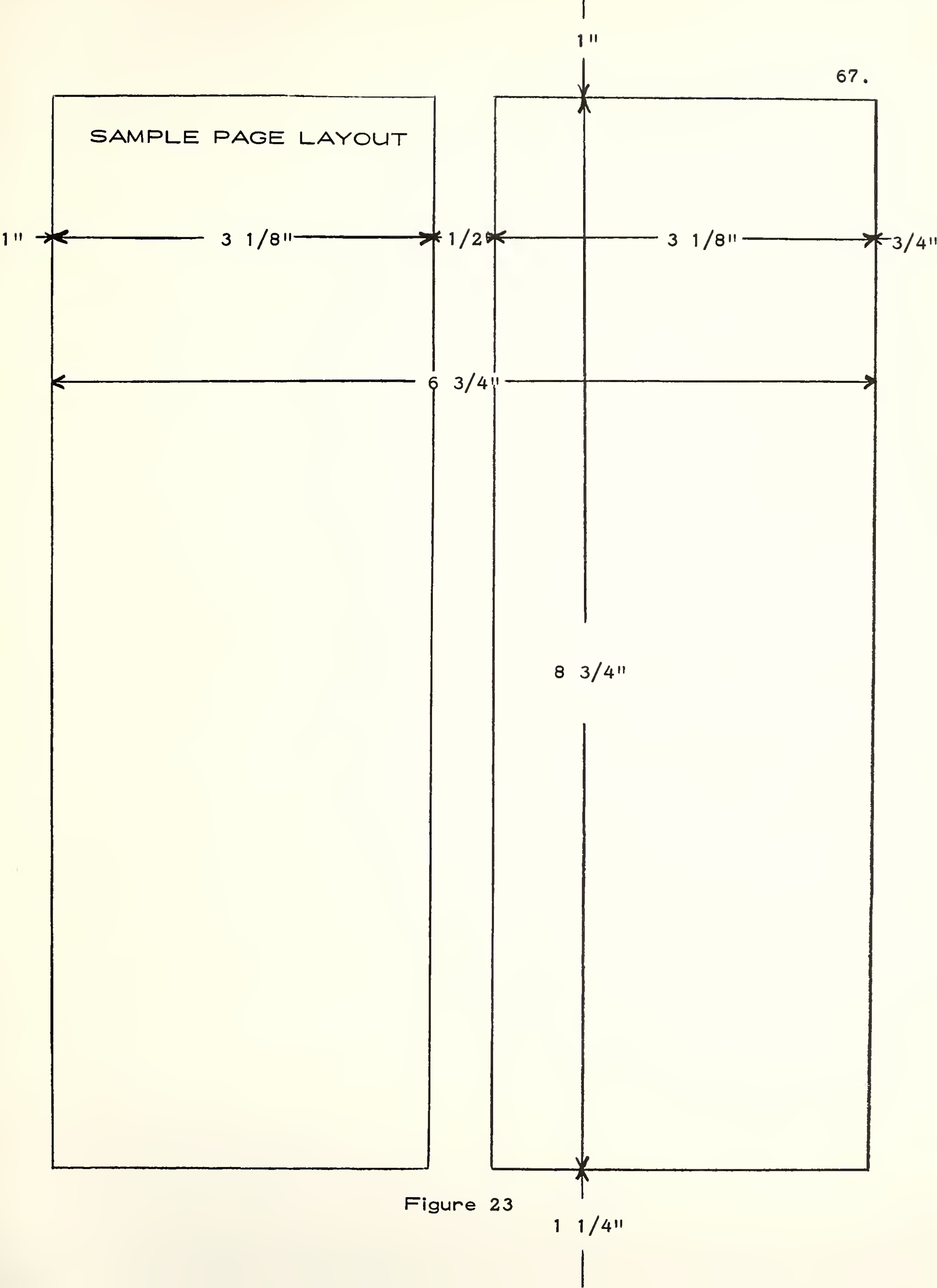


Figure 23

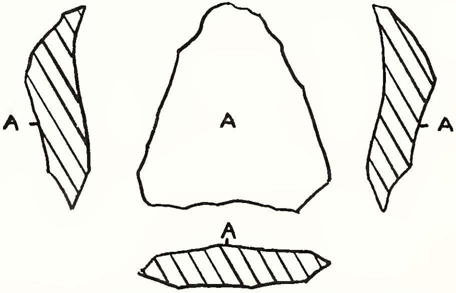
Photographs and Other Illustrations

Use an adequate number of photographs or line drawings to illustrate the report. One illustration, supplemented with a few words of explanation, often is preferable to the several pages of text needed to describe a situation or artifact. To be effective, the best print obtainable must be used. Invariably, there is loss in quality between the print and the final reproduction; an original that is poor results in an even poorer figure when printed.

The choice between photographs or line drawings when illustrating artifacts is dependent on the artifacts themselves and what attribute the author wishes to illustrate. Nevertheless, there are certain rules which apply to both techniques of illustrations.

1. Always orient the object so that it is in the normal position of use. For example, projectile points are placed with the point toward the top of the page; axes are placed in a vertical position with the bit down; the use edge of a side scraper is toward the left-hand side of the page; and so forth. Never orient typologically similar objects in different directions on the same figure. The only exception permitted is the necessity to illustrate some attribute which cannot be shown under the above conditions. Consult the companion volume to this Manual for orientation of specific types of artifacts.

2. Cross-sections of an artifact must be shown in a manner which leaves no doubt in the reader's mind concerning the correlation of attributes on the cross-section with those on the artifact drawing or photograph. The following technique of rotating an object is preferred:



3. Always arrange items in a balanced layout. Heavier or larger items are placed at the bottom of the figure or toward the center of the book.

4. Always have the strongest source of light coming onto the artifacts from the upper left. Never have the strongest source of light originating from the direction of the viewer. An exception is

made when the author wishes to impart a mood of mystery or supernaturalism such as in the depiction of dance masks.

5. When several photographs appear on the same page, they should be of similar density to avoid difficulties in inking during the printing process.

6. When a figure is made up from several photographs by cut-out and pasting, be sure that the light source does not conflict.

7. Do not attempt to show too much in one figure. This results in a loss of interest on the part of the reader.

8. A figure that will be reduced for the final copy should be examined with a reducing glass. Objects spaced too widely, letters that are too small, or artifacts that are too small will be ignored by the reader.

TEXT CITATIONS

Breternitz, David A.
1959 Excavations at Nantack Village, Point of Pines, Arizona. Anthropological Papers of the University of Arizona, No. 1, Tucson.

Jennings, Jesse D.
1959 Operational Manual: University of Utah-National Park Service Upper Colorado River Basin Archaeological Salvage Project. In The Glen Canyon Archaeological Survey, Pt. II, Don D. Fowler, James H. Gunnerson, Jesse D. Jennings, Robert H. Lister, Dee Ann Suhm, and Ted Weller. University of Utah, Anthropological Papers, No. 39. Salt Lake City.

Willey, Gordon R. and Philip Phillips
1958 Method and Theory in American Archaeology. University of Chicago Press, Chicago.

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F GY

1. Dittert, Al
   1958 F s in the Navajo
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2. Toulouse, henson
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3. Greminger
   1961 F alvage Archaeology.
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4. Eddy, Fr
   1961 E in the Navajo
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5. Sciscenti,
   1962 A er Projects.
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6. Hester, J
   1962 E ons in the South-
   w

7. Schaafsma
   1963 R rict. 71 pp., $3.00

8. Harris, Arthur H.
   1963 Ecological Distribution of Some Vertebrates in the San Juan Basin, New Mexico (with sections by William J. Koster and David M. Niles). 61 pp., $2.50

9. Hester, James J. and Joel L. Shiner
   1963 Studies at Navajo Period Sites in the Navajo Reservoir District. 77 pp., $2.00

10. Dittert, Alfred E., Jr. and Frank W. Eddy (assemblers)
    1963 Pueblo Period Sites in the Piedra River Section, Navajo Reservoir District. 120 pp., $2.50

11. Harris, Arthur J.
    1963 Vertebrate Remains and Environmental Reconstruction in the Navajo Reservoir District (with a section by Frank W. Eddy). 68 pp., $2.00

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